How the world was explored

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How

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the world was explored

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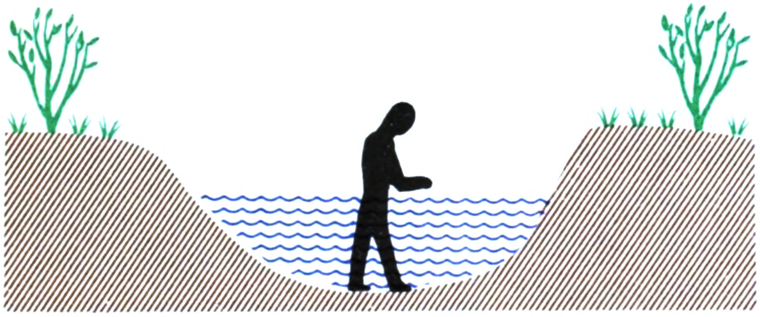
When Every Man Was an Explorer

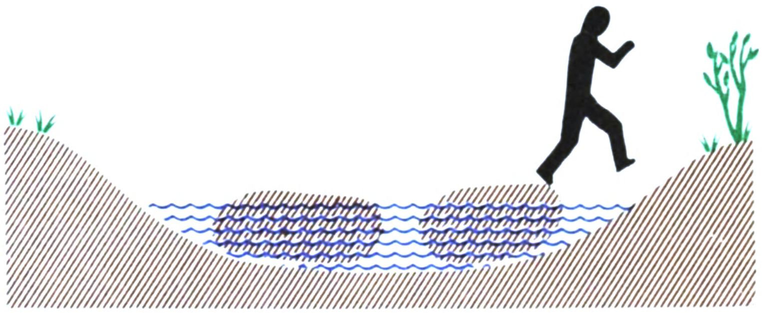
While hunting, early men often followed animals into strange, unknown country.

In these days fast planes fly regularly to all parts of Africa, Australia, America and Europe. Yet only a hundred years ago very little of Africa had been explored, two hundred years ago Australia was almost unknown, and five hundred years ago America was still undiscovered.

Exploring began in very early times, when men lived mainly by hunting. While following a herd of deer or cattle, the first hunters were often led into strange country which none of their tribe had ever seen before. They were not only hunting, they were also exploring! If the herd crossed a stream, they would wade across a shallow spot and follow it. Sometimes they would place boulders to serve as stepping stones.



Sometimes they waded across streams.

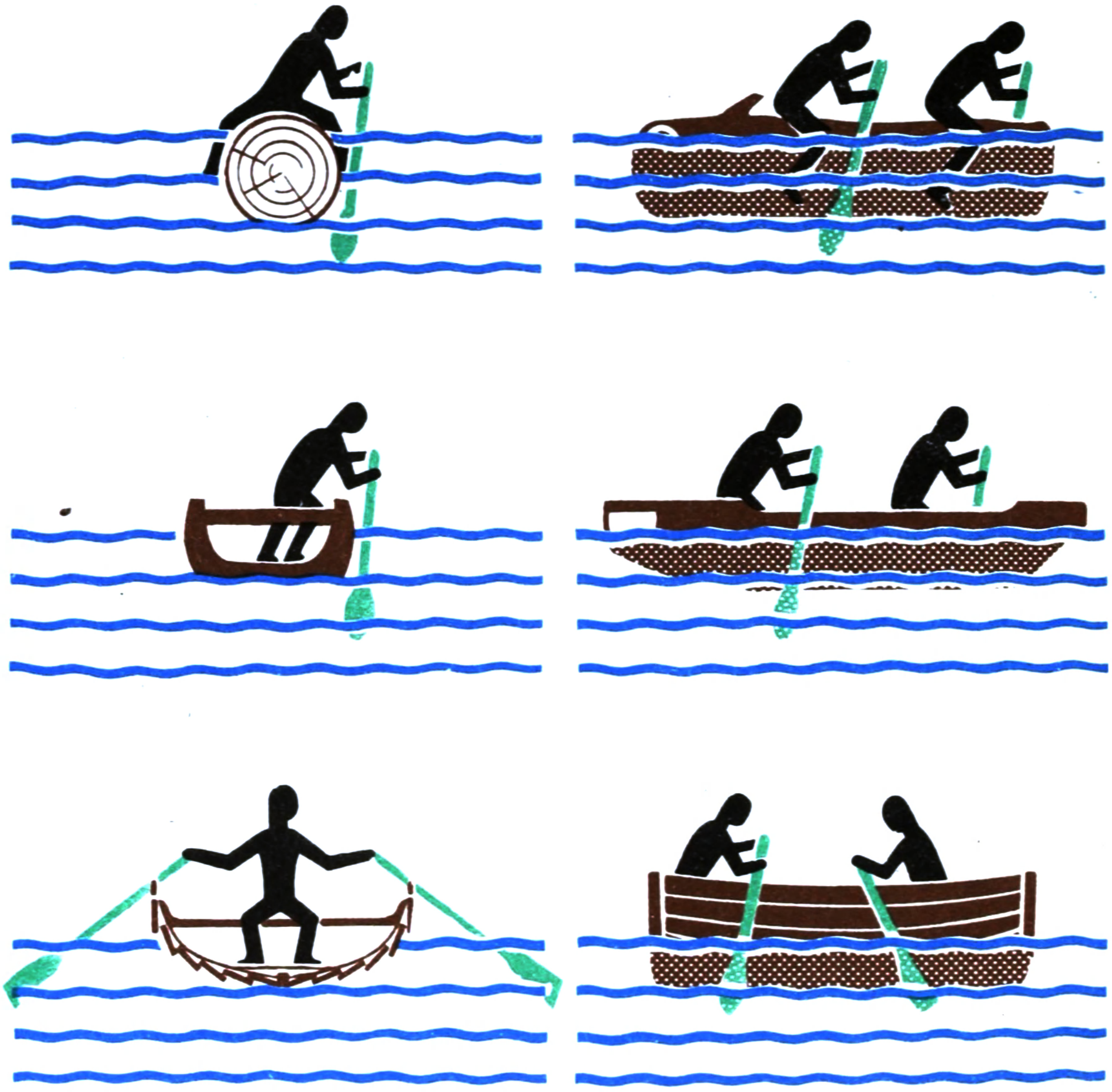


Sometimes they made stepping stones.

River-Roads of Long Ago

To cross wide rivers, early men cut down trees with their stone axes, dragged them into the water and used them as crude " boats ". Two men sitting astride a log and using a paddle each side of it could steer straighter and keep the log balanced better than one man with one paddle. But these " boats " were very easy to capsize, and people would probably not want to travel very far on them.

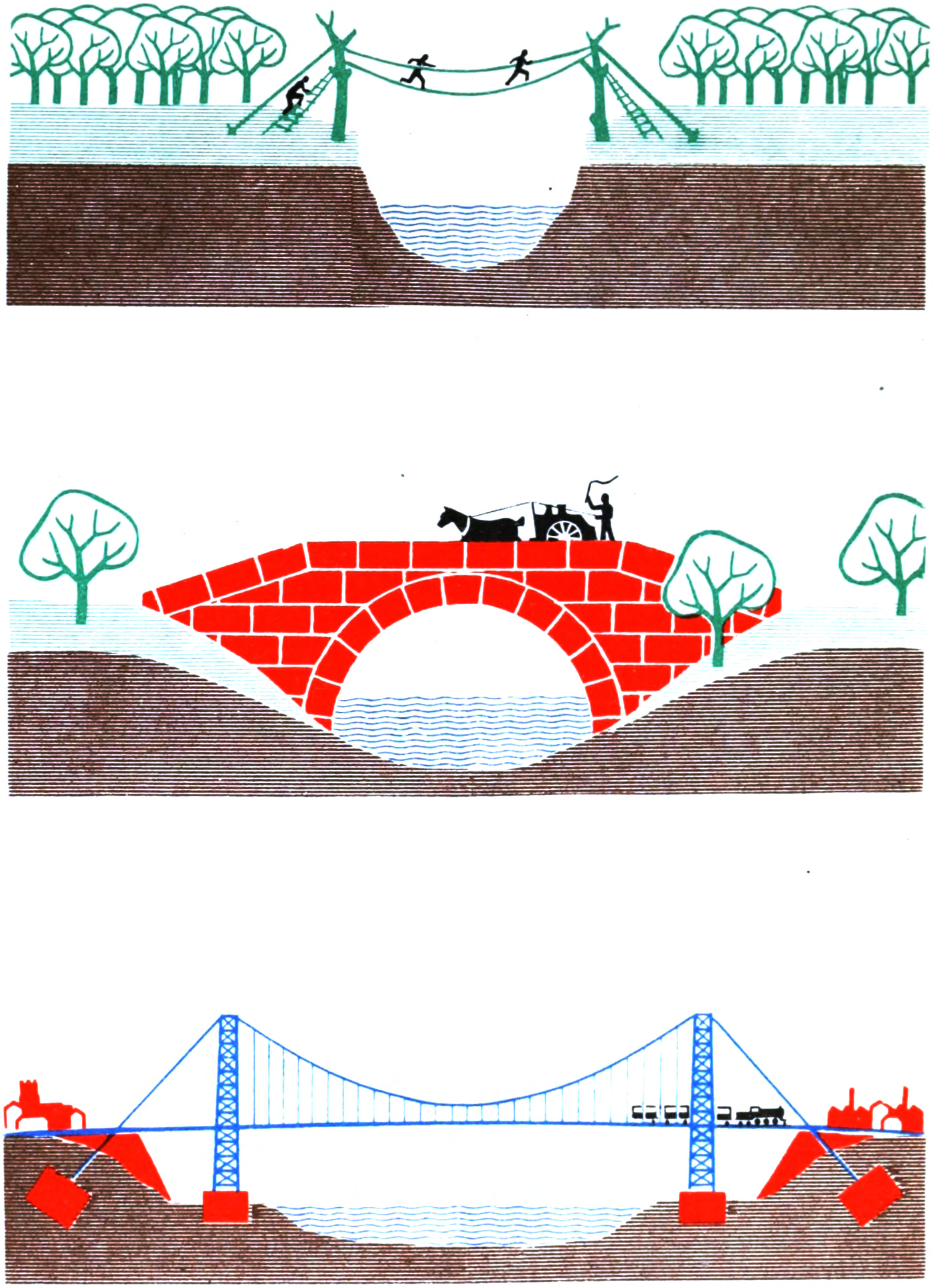
In time, men learned to hollow out logs with stone scraping tools and with fire. In this way they made dug-out canoes which were much safer and in which they could carry things. Still later, when men had learned to make better tools, they built strong boats made of overlapping planks.



Rivers were harder to cross. The first men found they could use floating logs and paddles to help them. In time people hollowed out logs to make canoes. Boats built of planks and rowed with oars came much later.

Early boats were often steered by a man sitting in the stern and moving a broad steering oar from side to side, but after a time rudders were added for steering. With stronger, safer boats men began to think of rivers not as barriers which barred their way, but as useful roads.

Where a river had to be crossed often, men made ropes of twisted grass and stretched them across the water from one tree to another so they could walk across. Rope bridges are still used in parts of India, Africa and South America, but in most places they were replaced later by stone bridges. Modern suspension bridges, built of steel girders and steel ropes, are even stronger than stone bridges, but in appearance they are more like the rope bridges which early men made many years ago.



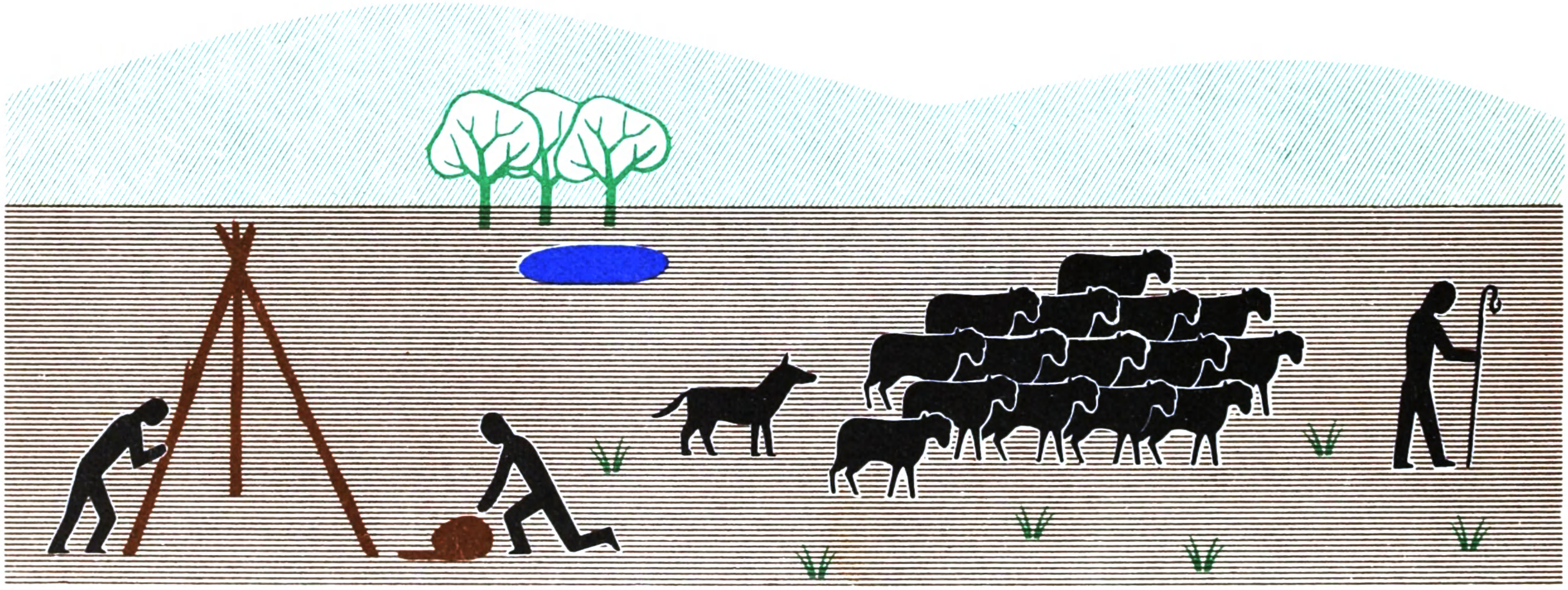
Early bridges were made by stretching ropes from tree to tree across a river, as soldiers do today. When men learned to build arches they made heavy stone bridges. Modern steel bridges, shaped rather like rope bridges, span wider rivers than stone ones.

Herdsmen Who Crossed a Continent

Hunger often forced the early hunters to make surprisingly long journeys. Sometimes, as more babies were born and the tribe grew larger, the old hunting grounds would no longer provide enough animals to feed everybody. Some members of the tribe, or perhaps the whole tribe, would travel many miles on foot in search of new hunting grounds.

In some parts of the world, too, especially in North Africa and Arabia, the climate gradually became hotter and drier, and land that was once rich prairie where cattle abounded slowly became desert. As the years passed the herds of cattle moved farther and farther northward, and always the hunters followed them.

Thousands of years later, when men learned to tend animals, hunger still kept them moving about, but now it was the hunger of their flocks and herds that drove them on. The first sheep and cattle farmers used to pitch their tents where there was a good supply of water and plenty of grass for their herds. But in time the animals would eat up most of the grass. The shepherds and herdsmen



Early shepherds stayed in one place until their flocks had eaten most of the grass. Then they packed their tents and set off to find new pastures.

Often these shepherds went long distances before they found new grasslands with a good supply of water. In the course of a few years they journeyed many miles.

had to pack their tents and set off with all their animals to seek for fresh pastures.

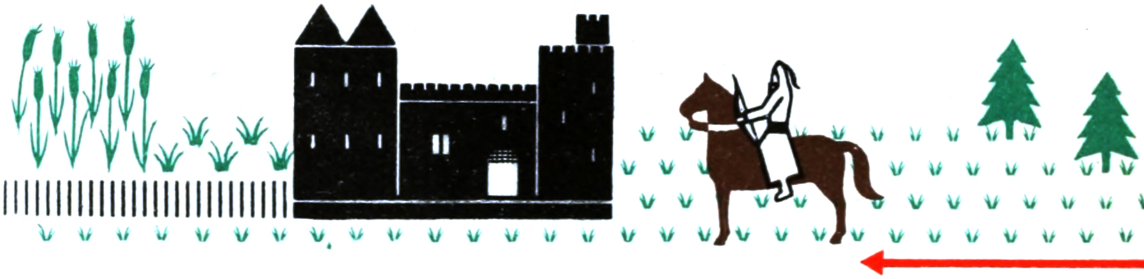
There is a story about this in the Bible. Abram and Lot, two rich farmers, used to live together and let their animals graze together, but in time there was not enough grass left for all the animals, and Lot's herdsmen began to quarrel with Abram's herdsmen. To avoid a real feud, Lot said farewell to Abram and journeyed far off to the east, taking his cattle with him.

In time, the people of China, India and Europe began to live in settled farming villages, and even in towns. But in the vast prairie lands of central Asia that lay between, there were still large and growing tribes of wandering herdsmen, many of whom used to travel on horseback. Farther and farther these tribes spread out across the plains, always looking for new pastures, always avoiding the deserts and mountains, until at last they reached the settled farmlands to the east, south and west.

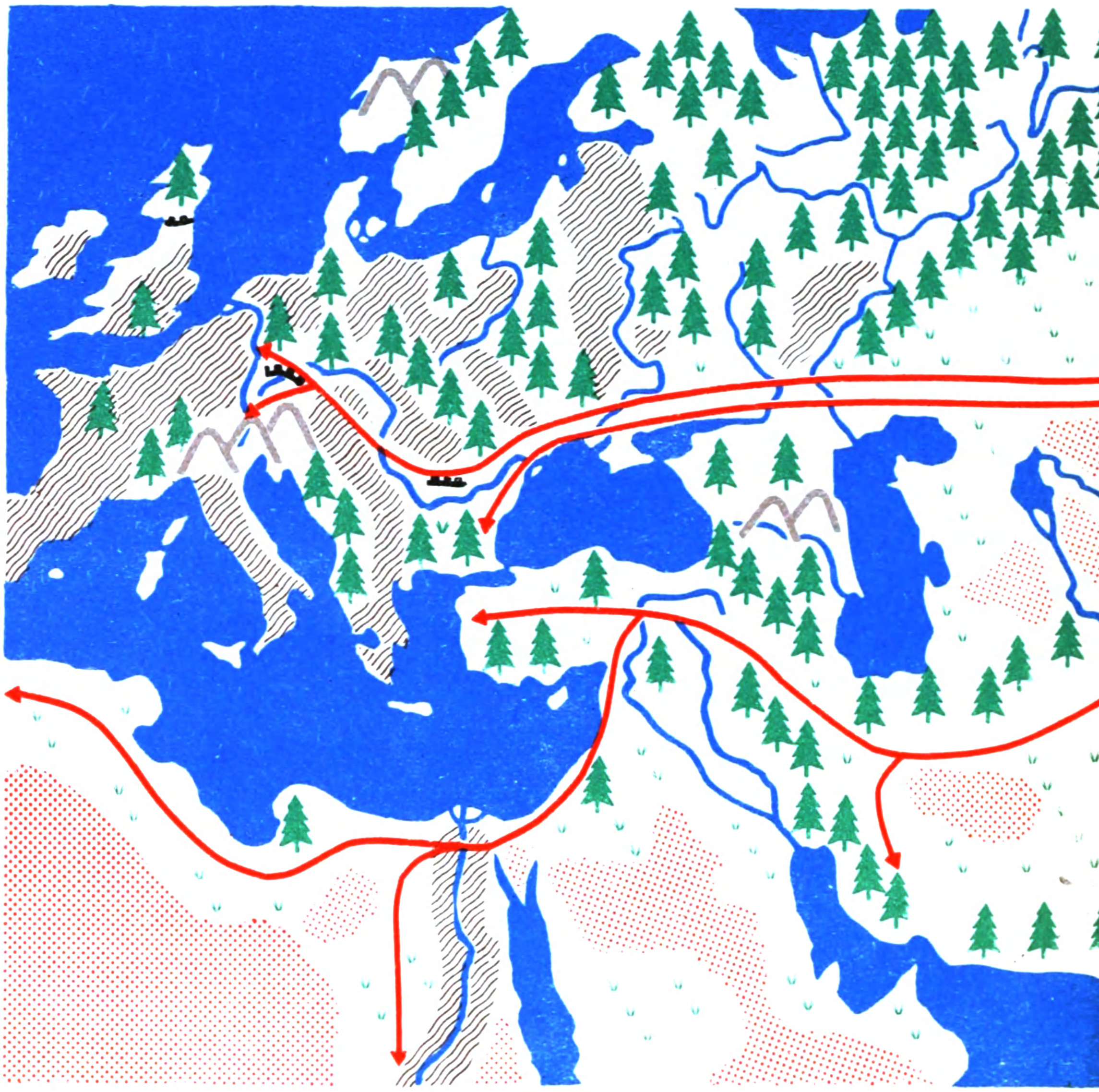
The Battle That Lasted a Thousand Years

The peoples of China, India and Europe used much of their land for growing crops. The wandering herdsmen from the plains of Asia—the Huns, Goths, Mongols and Tartars—wanted the land for their cattle to graze on. And so a great battle arose between the herdsmen and the farmers, a battle that lasted more than a thousand years.

Two hundred years before the time of Christ, the Chinese built a great wall hundreds of miles long to protect them from the raids of the Mongol herdsmen, but century after century the Mongols pushed on into China, and fourteen hundred years later much of China had been conquered, and formed part of Kubla Khan's Mongol Empire.

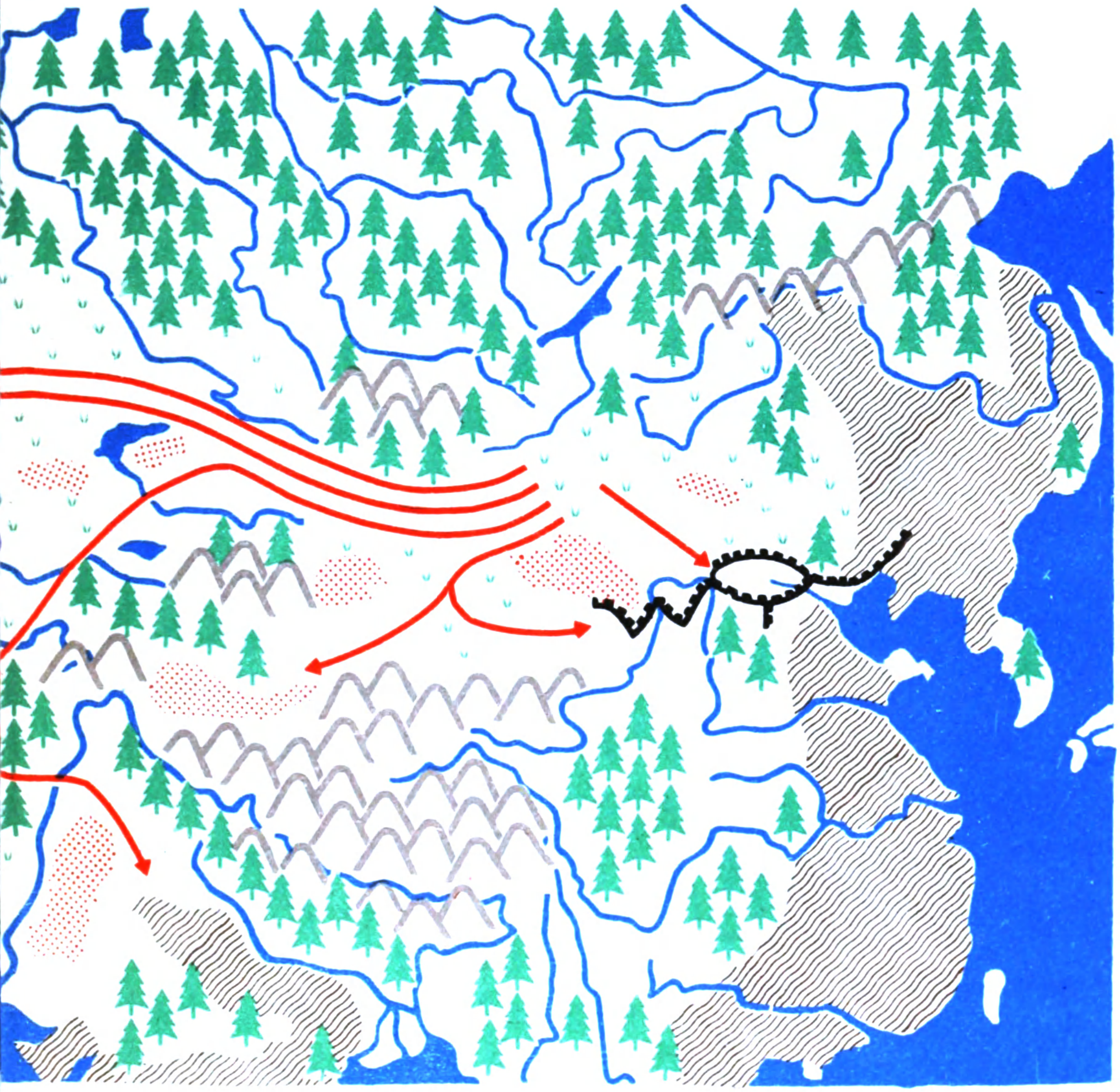


In some places strong walls kept out invaders. In other



The red arrows show where the herdsmen-warriors passed over the great plains towards Europe, India and China.

places the advance of the wandering herdsmen continued.

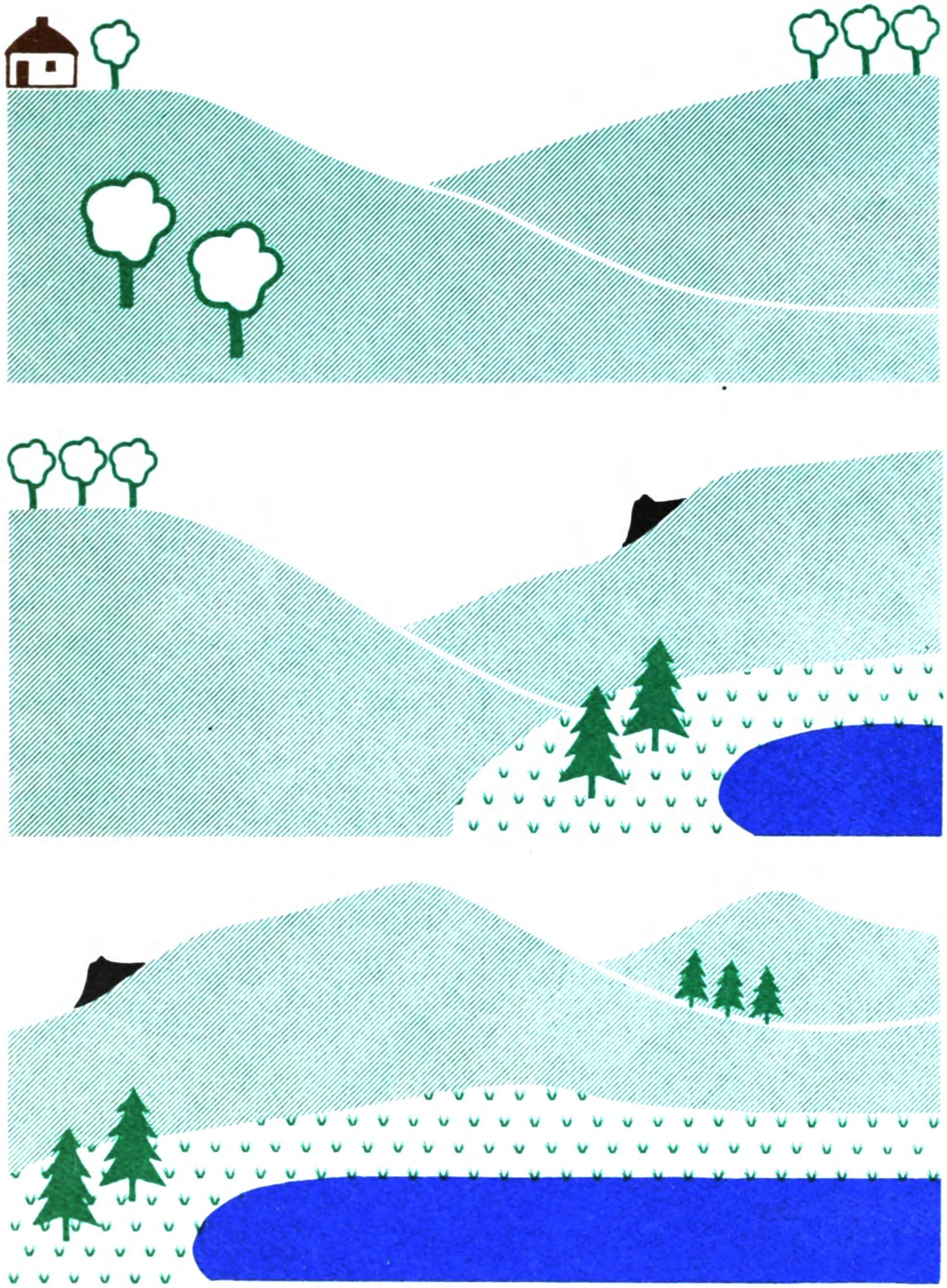


The brown wavy lines show good farmlands, red dots show deserts, black lines show where the main walls were built.

In Europe, too, the Romans built huge walls to keep out invaders from the great plains, but in time the Huns and Goths defeated the Roman Legions and swept across most of their Empire. Tartar tribes fought their way into northern India.

Over the long years, market towns like those we read of in the *Arabian Nights* grew up in many parts of the plains of Asia where the herdsmen could get fresh supplies of salt, cloth, swords and drinking vessels, and in time men could find their way from town to town across the whole continent. During the time of the Roman Empire silk was carried from China right across Asia to make clothes for Roman citizens. Nine hundred years later Marco Polo journeyed from Europe to China across the same great plains.

"How Shall I Find the Way Back?"



Before roads were built, men found their way back by remembering landmarks they passed on the outward journey. A man who wanted to get back from the lake to the hut first had to pass the big black rock, then the clump of trees on the hill.

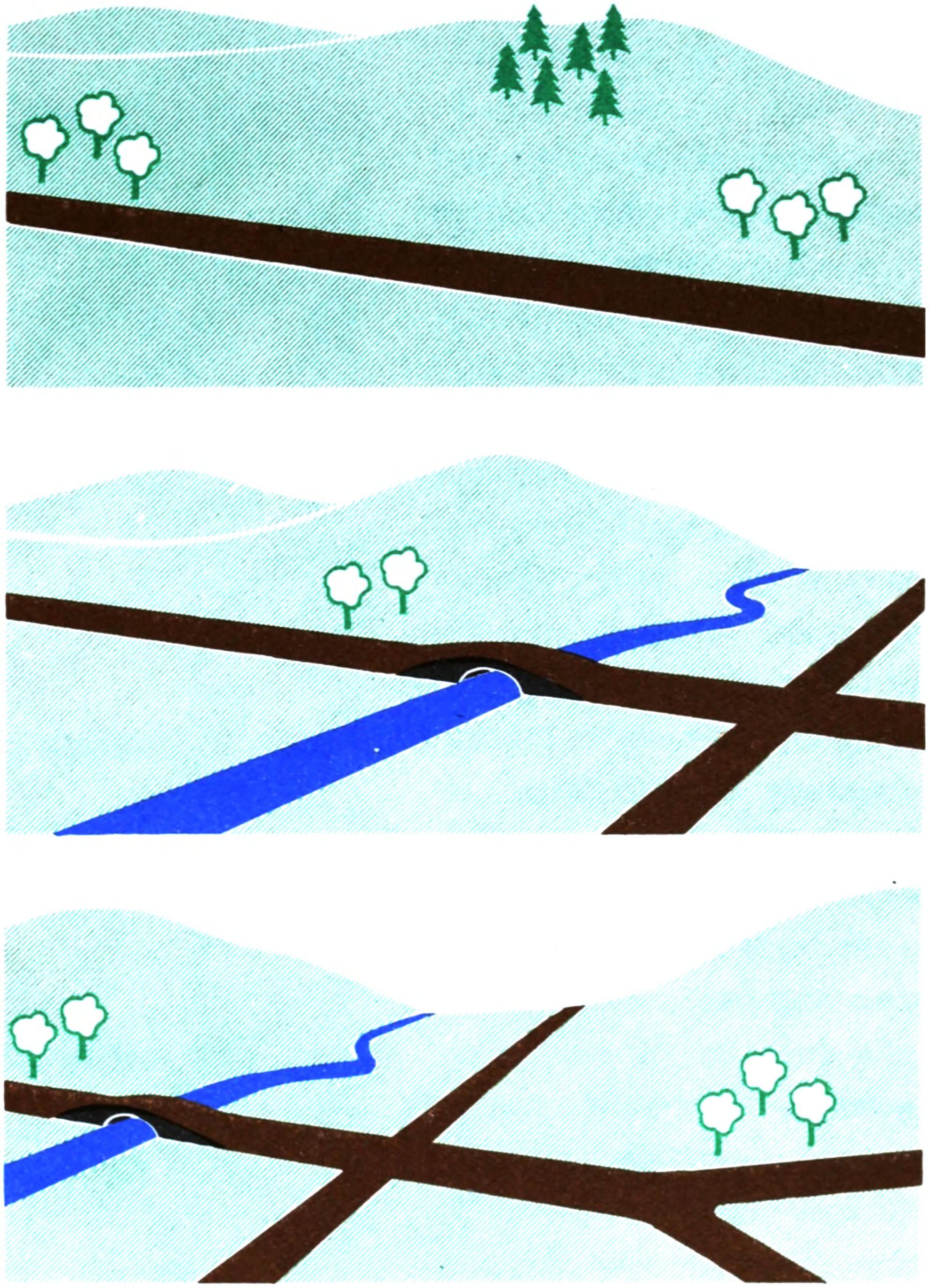
The herdsmen-warriors of the plains were not the only people who made long journeys in early times. A hundred years before the Chinese built their great wall, the armies of Alexander the Great battled their way from Macedonia, north of Greece, through Syria, Egypt, Mesopotamia and Persia.

But although large groups of herdsmen or soldiers might make long land journeys, travel was still difficult and dangerous for the man who went alone. Besides the danger of meeting robbers or wild animals there was always the risk of getting lost, for in those days there were no roads apart from a few narrow footpaths, no signposts and hardly any maps.

When a man set out alone on a journey through strange country he had to ask himself " How shall I find the way back ? " The answer was for him to remember the landmarks which he had passed on his outward journey.

Then, two thousand years ago, the Romans began to build up their mighty empire, which included all the lands around the Mediterranean and a large part of western Europe. To keep order over this wide area, and to help defend it, they built fine stone-paved roads connecting all the main towns so that soldiers could move quickly from place to place. Roadside forests where robbers might hide were cut down.

After that travel became easier for the lonely wayfarer. He had only to follow the right roads to find his way.

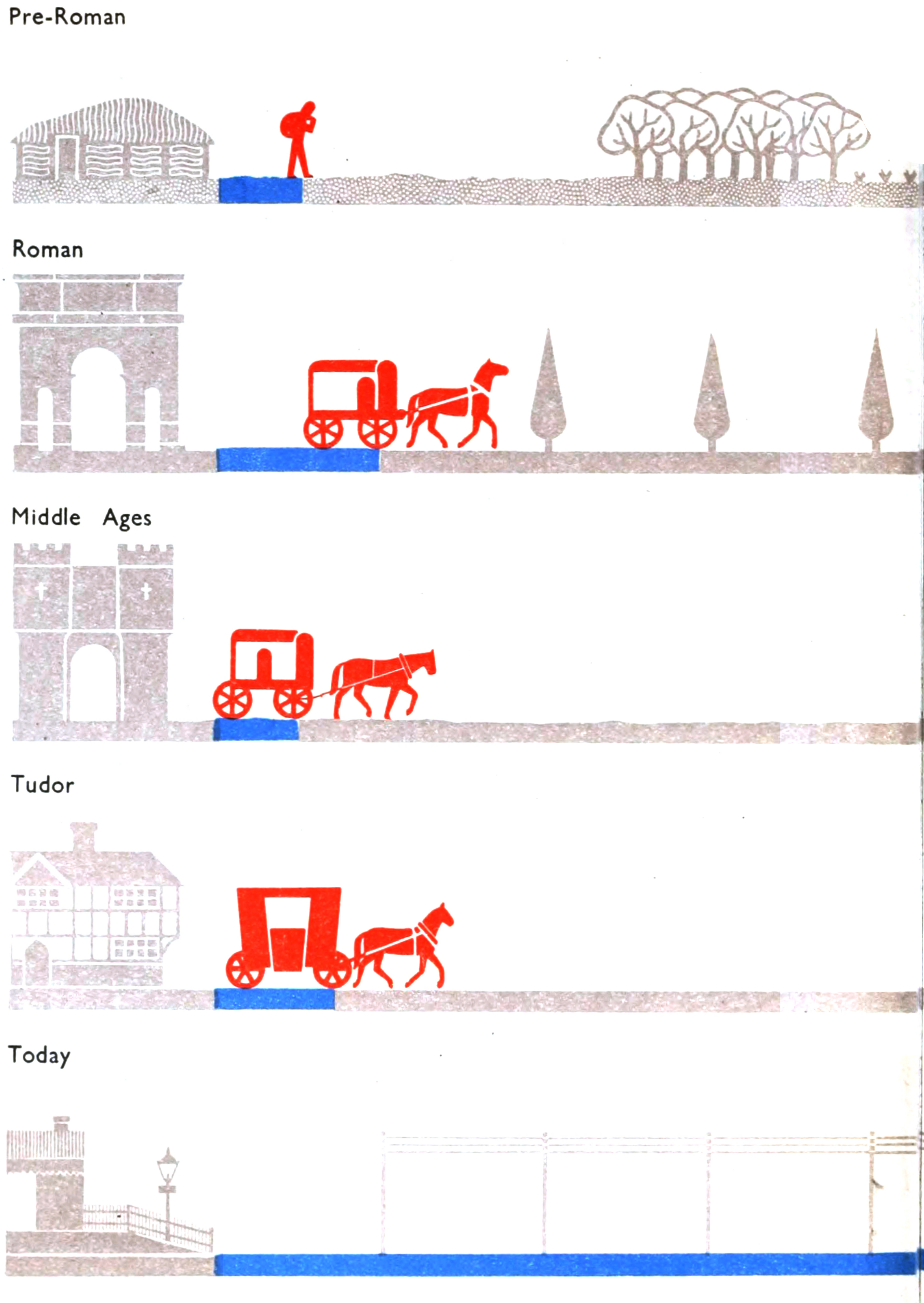


After the Romans built long, well-made roads and strong bridges travel was easier. People had only to follow the right road to find their way back home. The Roman roads went right to the edge of unknown lands and so helped new discovery.

Changing Roads and Changing Speeds

Although wheels and carts were invented three thousand years before Roman times, there were few roads in Europe where horses and carts could travel. Men carrying bundles on their backs, or horses with packs strapped to their flanks, plodded slowly along the rough, narrow tracks, covering only three or four miles an hour. But when the Roman roads were built horses and carts went at twice that speed.

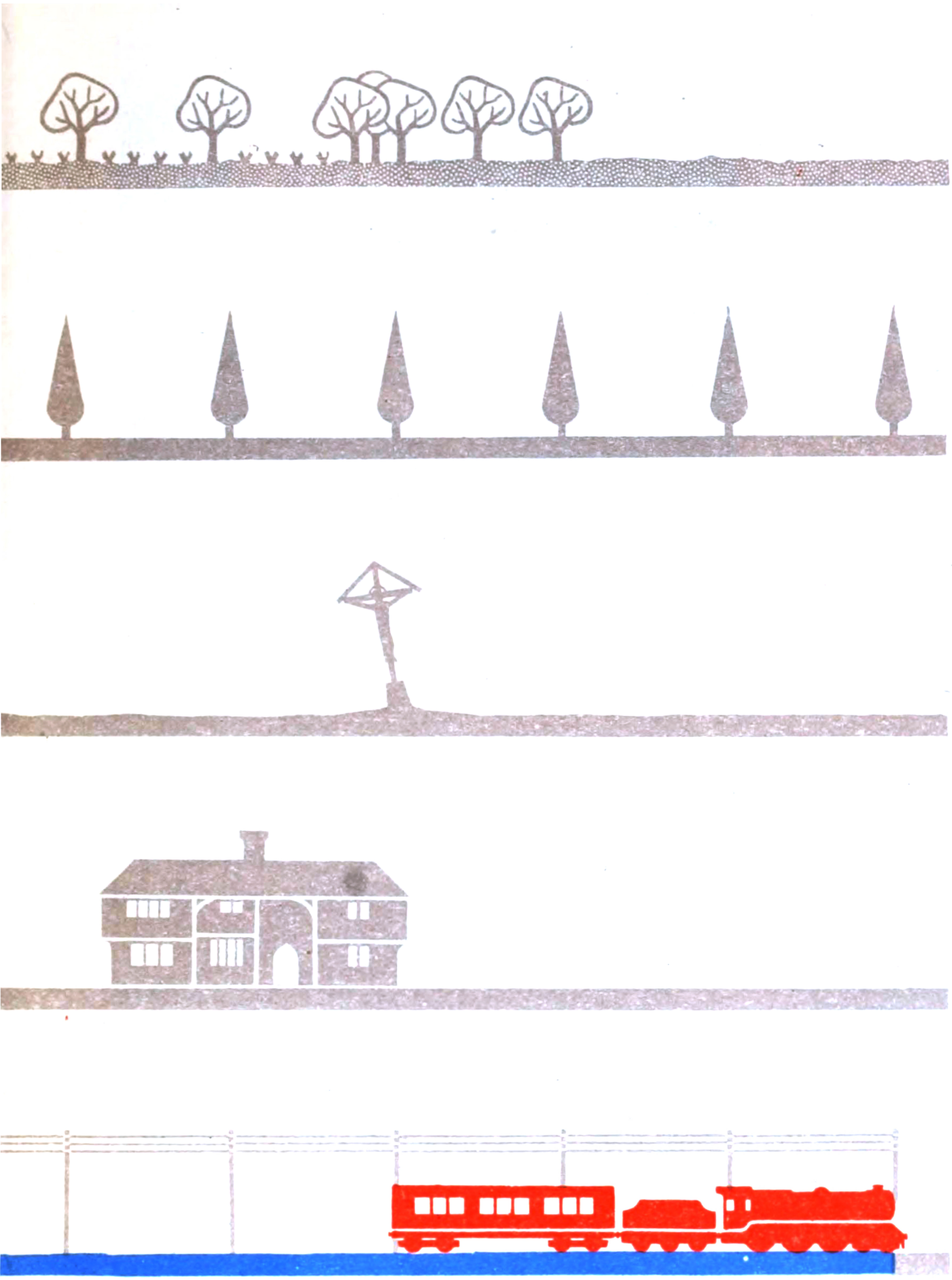
After the Roman Empire had broken down, people no longer took proper care of the roads. By the time of the Middle Ages, five hundred to a thousand years ago, horses and carts could only go at walking pace even on the best roads. On bad roads,



The blue lines show how far people of different ages could travel in one hour. On the rough tracks of early times a man could walk three miles an hour. On the Roman horses again had to carry packs while men followed on foot or on horseback. Long journeys again became dangerous, and men prayed at wayside shrines for protection.

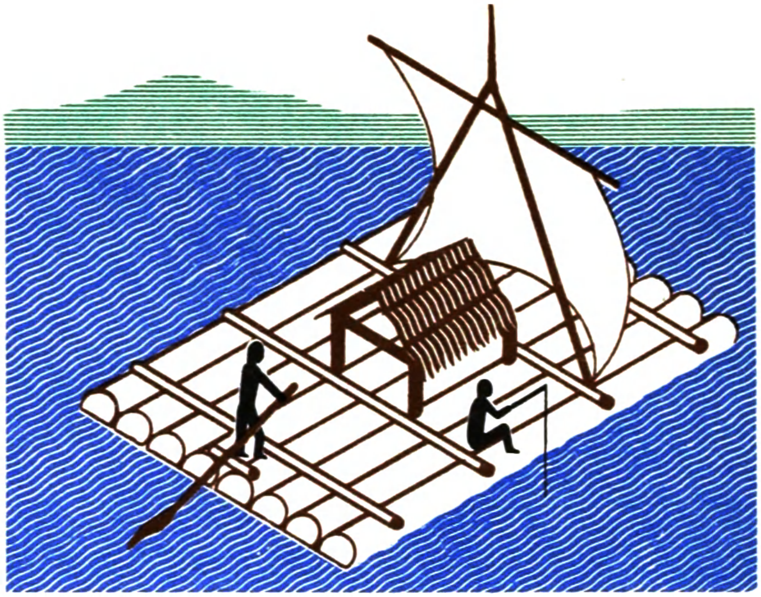
About the time when the first white settlers were making their homes in America, and when the Tudor kings were reigning in England, people again began to give more care to roads. Harnesses were also improved, but the sprung coaches of those days were very heavy and road travel was still not so fast as in Roman times. For a few years around the time of Napoleon better roads were again built and horse-drawn coaches could at last travel faster than the carts of Rome.

Ten years after Napoleon died railroads were already built, and locomotives were pulling trains along the new iron roads.



roads horses and carts went twice as fast. A thousand years later roads were poor and travel again became slower. Today trains travel at over sixty miles per hour.

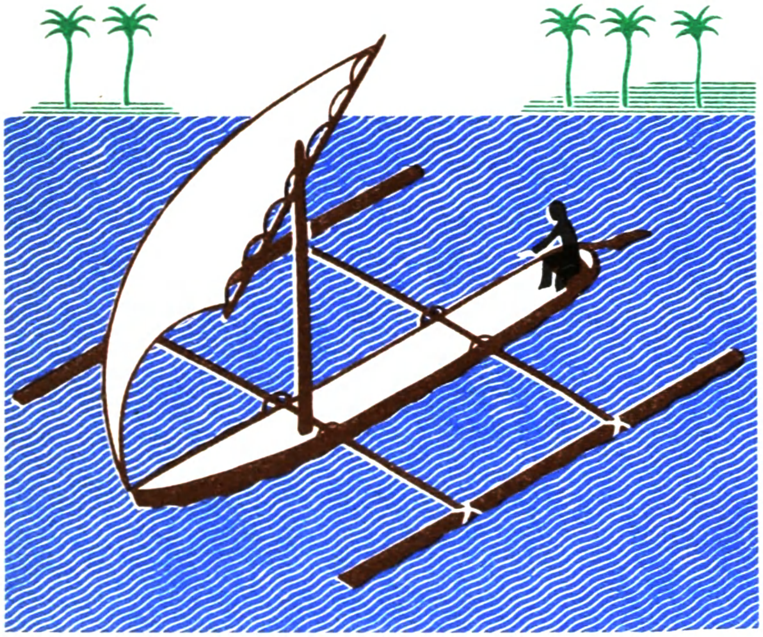
How the First Ships Sailed to Unknown Lands



The people who lived in Peru, built rafts with logs of balsa wood and could have crossed the Pacific on them.

Land travel was improved mainly by highly civilized people like the Romans, but some of the first voyages across oceans were made by primitive people sailing in primitive boats.

Hundreds of years ago the natives of Peru lashed logs of balsa wood together with ropes to form rafts. Some people believe that these rafts, fitted only with a big square sail and a crude cabin to serve as shelter, may have sailed thousands of miles across the Pacific. Not long ago a party of young men made a voyage on a raft of this kind that they named the " Kon-Tiki " from Peru to an island near Tahiti in the South Pacific.

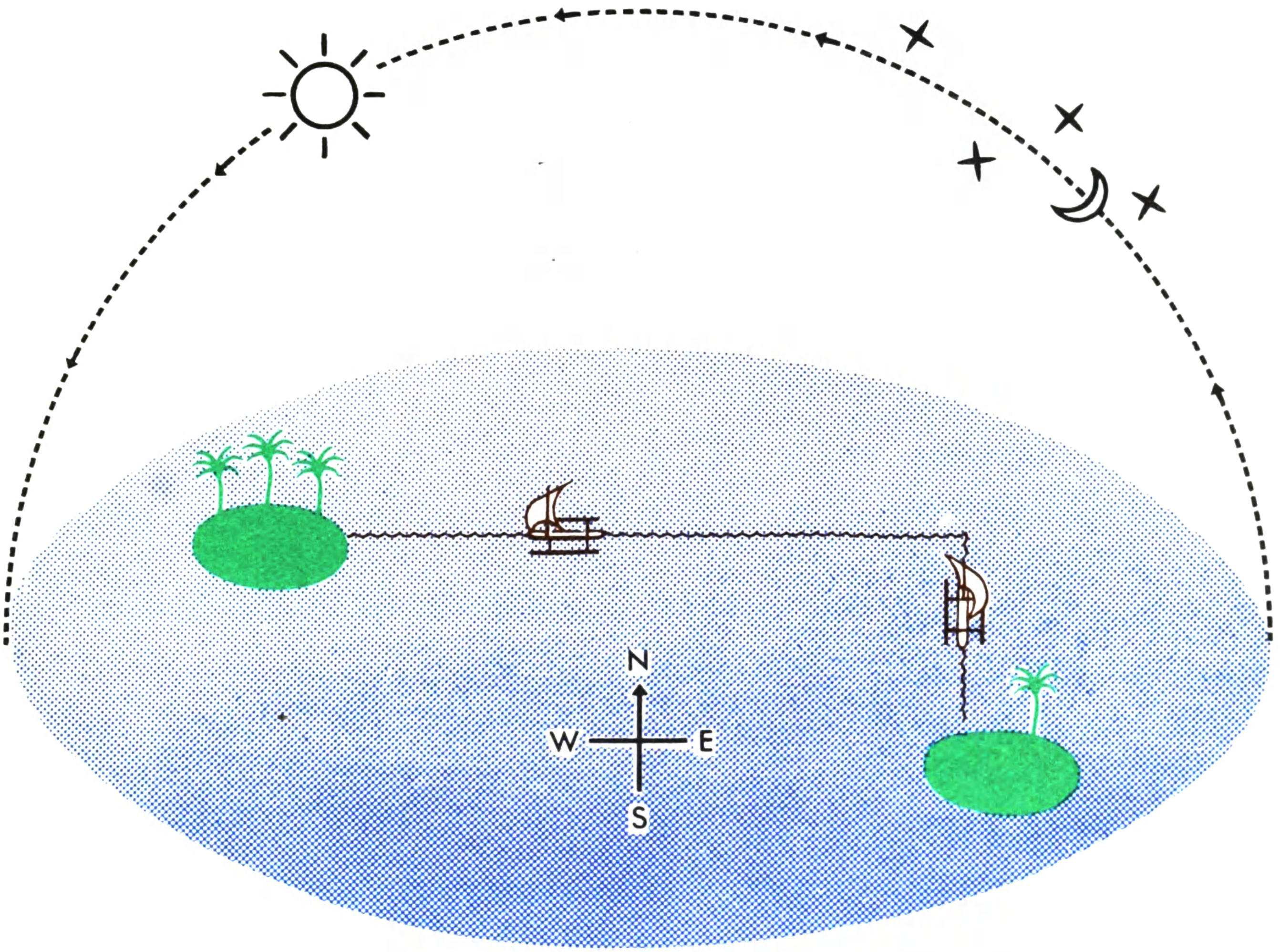


South Sea Islanders made canoes rather like surf boats, and sailed to other islands many hundreds of miles away.

The South Sea Islanders themselves sailed long distances in boats fitted with out-board floats. Some had only one float, and looked strangely like motor-cycles with side cars. When white men first discovered New Zealand, they found people called Maoris settled there ; the first Maoris may have sailed from the South Sea Islands in boats of that kind.

The men of the southern seas learned to find north, south, east and west by watching the movements of the sun and the stars. To reach an island to the north west, they first sailed due north then due west.

The Phoenicians, who lived in Syria five hundred years before the time of Christ, also found direction by the stars, and many years afterwards Greek sailors still called the Pole Star the "Phoenician Star." But although Phoenician seamen made voyages to all parts of the Mediterranean, to Britain, into the Black Sea, and once, even, right round Africa, they seldom sailed out of sight of the coast.

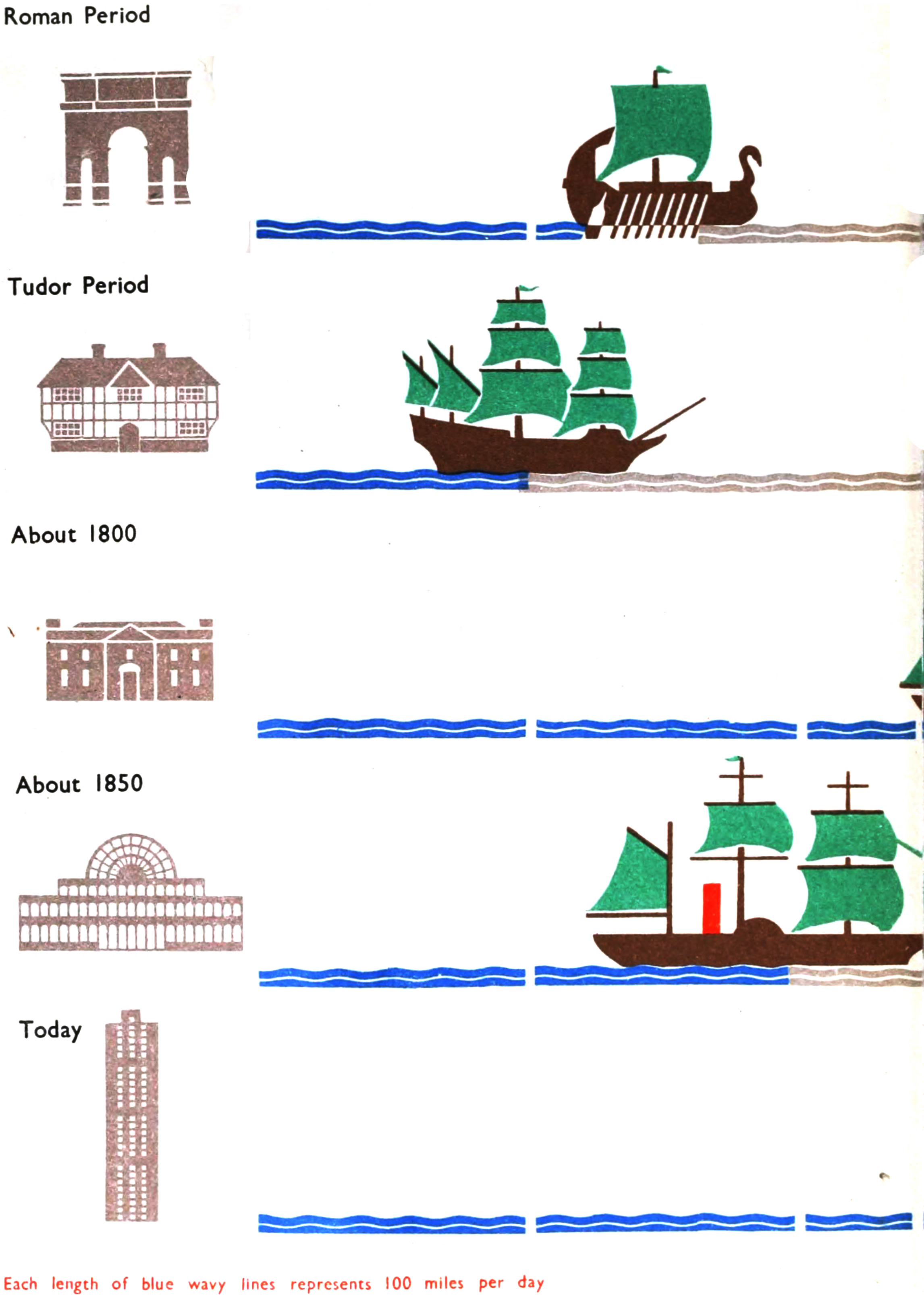


Some primitive people learned to find north, south, east and west by watching the movements of the sun and stars. To reach an island to the north-west, they first sailed due north, then made a sharp turn to the left and sailed due west.

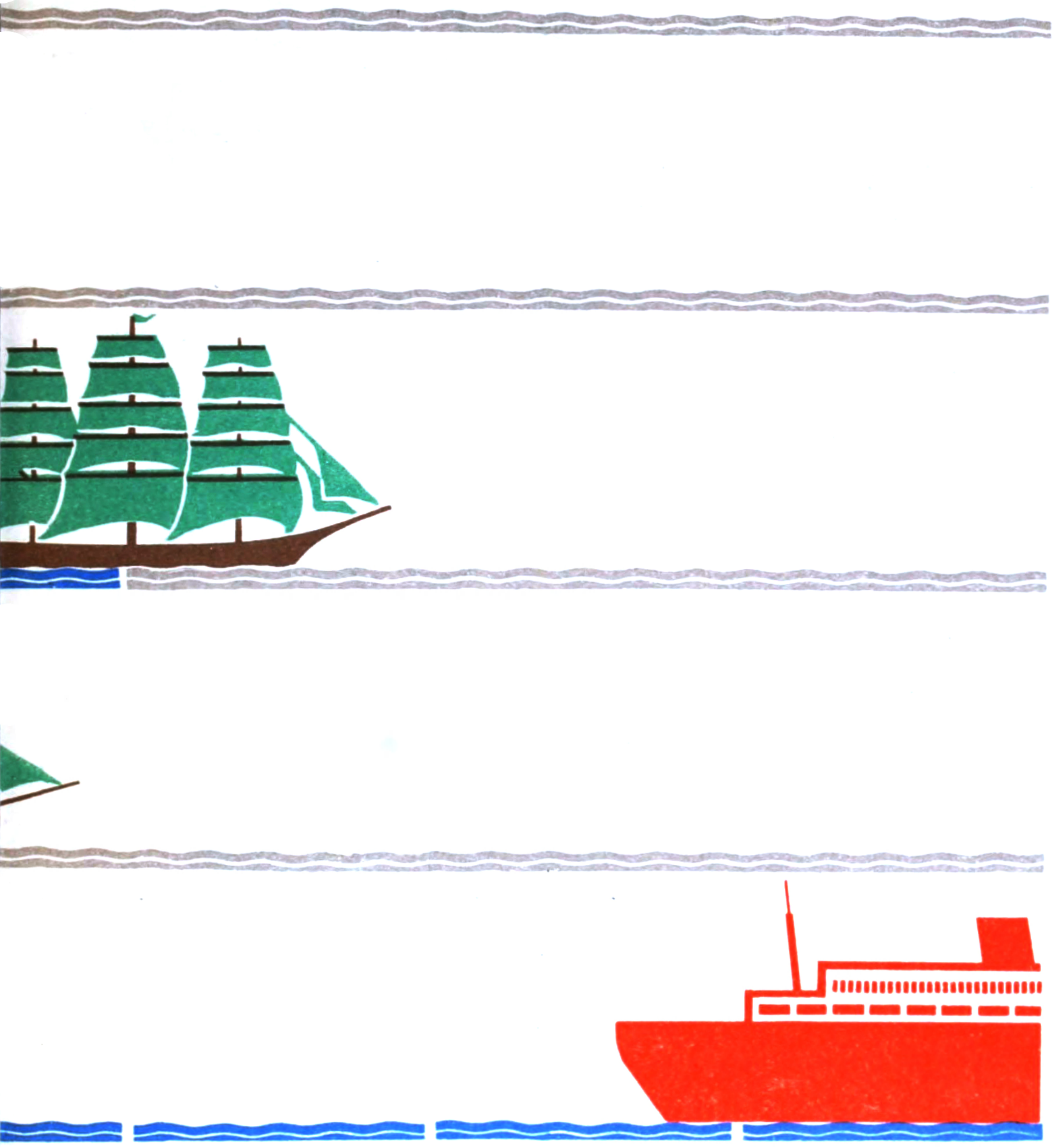
Sail and Steam Conquer the Broad Oceans

Phoenician ships were driven by oars as well as by sails, the rowers sitting in two tiers, one above the other. By this arrangement a large number of oarsmen could row quite a short vessel, thus giving it more speed. The ships of ancient Greece and Rome were similar, except that they used three tiers of oarsmen instead of two.

Rome itself had such a large population that corn had to be brought by sea from Egypt to help feed them. Saint Paul was once shipwrecked in one of these large grainboats, and the Bible says that the ship was carrying two hundred and seventy-six people, besides its cargo of grain. These Roman ships could go more than a hundred miles a day.



Roman ships were faster than those of Columbus, but they did not cross wide oceans. The clippers of 1800 *were*



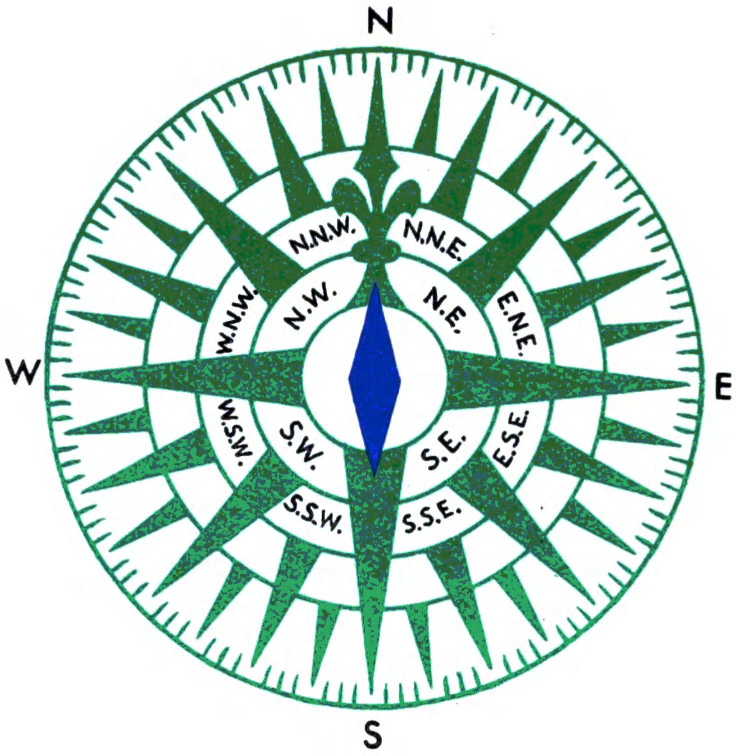
faster than early steamships, but they could not sail without a breeze. Modern liners travel swiftly in all weathers.

Fifteen hundred years later, when Columbus crossed the Atlantic, ships were generally built more strongly and carried more sail, but oars were seldom used and sea-voyages were not so fast. The fastest sailing ships ever were the clippers, built mainly in America and Britain about a hundred and fifty years ago. They could cover three hundred miles a day —a hundred miles more than the first ships which used steam-driven paddle-wheels as well as sails.

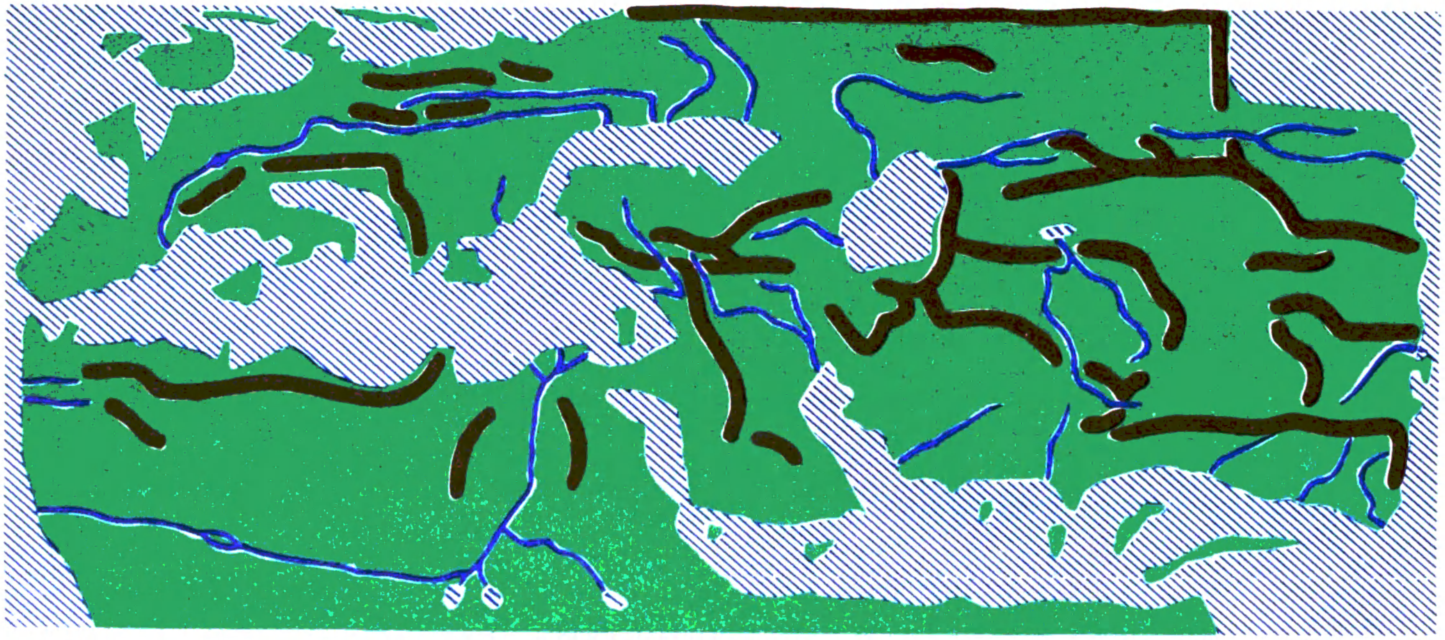
But steamships had the great advantage of not depending on the wind, and during the last hundred years they have gradually replaced even the best of sailing ships for long ocean journeys. A modern steamship travels twice as fast as a clipper, and never has to " wait for the wind." It is much larger than ships of long ago.

The Small Flat Earth Becomes the Large Round World

Although the ships of Columbus' time were no faster than those of the Romans, the men who sailed them had better means of finding direction. One of these was the magnetic compass which had long been used in certain eastern countries but had only recently come into general use in Europe. Its needle always pointed northward (though not exactly to the North Pole) and so showed navigators the direction in which their ships were sailing. There were also



A compass-needle points north, and so helps seamen to find direction even when clouds hide the sun or stars.



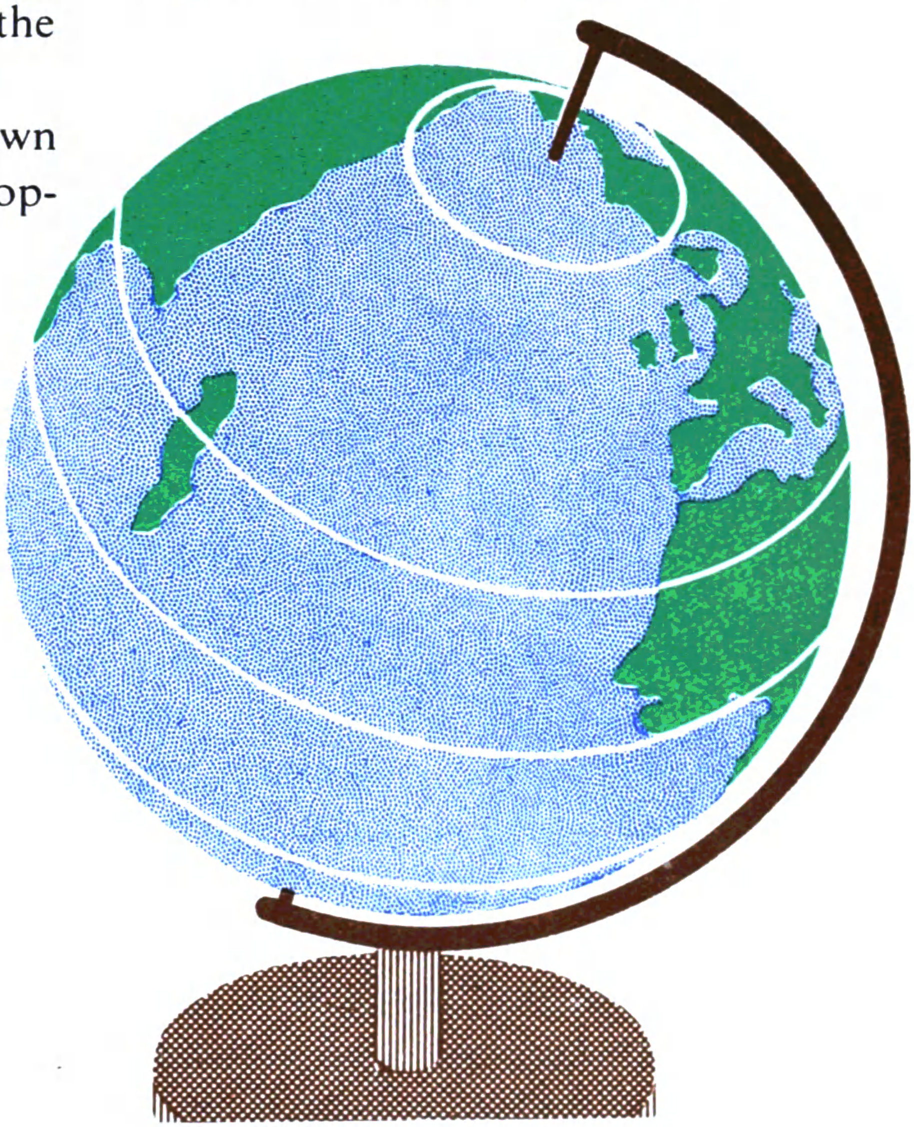
When this map was made, nearly a thousand years ago, many people thought the earth was flat. Sailors feared their ships might topple over the edge of the earth.

instruments called astrolabes, which showed how far ships were north or south of the Equator.

Maps, too, were better than they had been before. Centuries before Columbus lived, many sailors and learned men of ancient Greece and Rome had believed that the earth was round, but later, in the Dark Ages, most people in Europe thought it was flat. The maps they made usually showed little of the earth except the countries in and around Europe.

Sailors were afraid to sail unknown seas for fear their ships should topple over the edge of the earth !

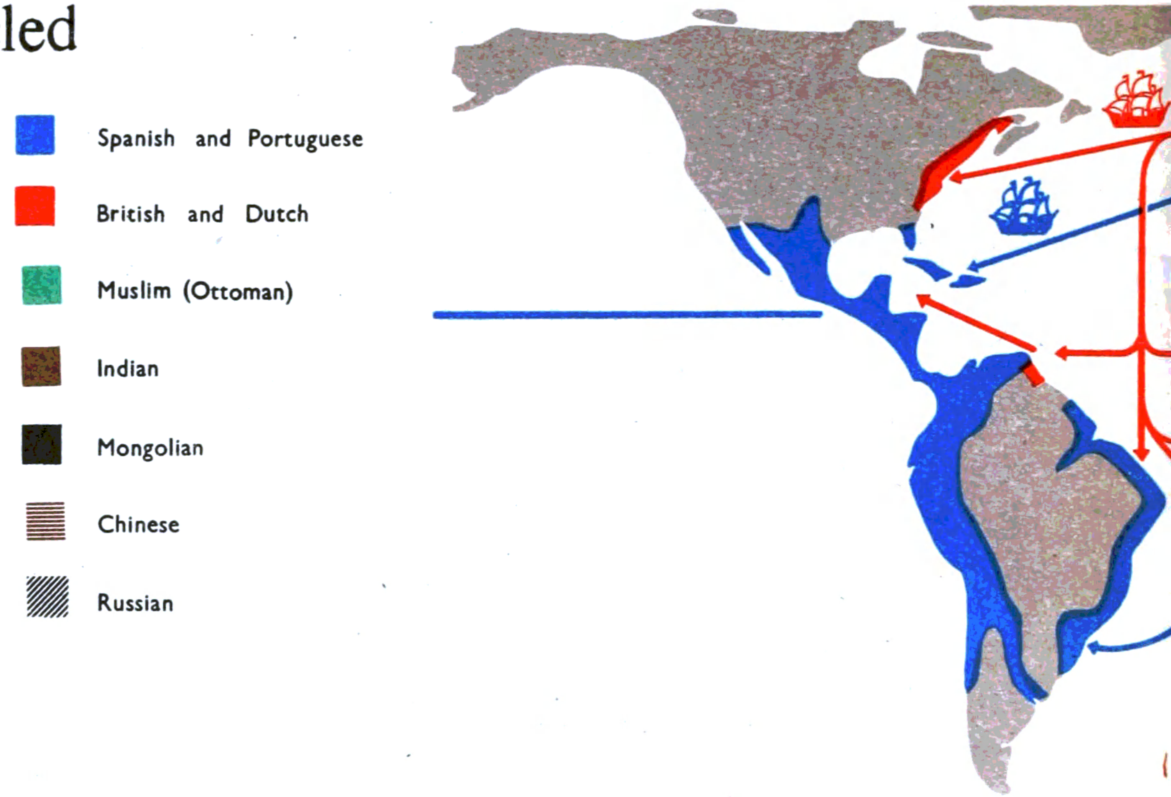
But by the time of Columbus a new interest in geography had grown up. Men like Henry the Navigator, the Portuguese prince who discovered Madeira and the Azores, encouraged students, pilots and navigators to make accurate maps. In time the old maps showing a small flat earth began to be replaced by globe-maps showing a large round world. But still many unknown lands were missing.



About five hundred years ago some people believed that the world was round, and new globe-maps were made. But many lands were still missing from these maps. America, Australia and New Zealand were yet to be discovered.

The Ships That Circled the Earth

An Aztec warrior.



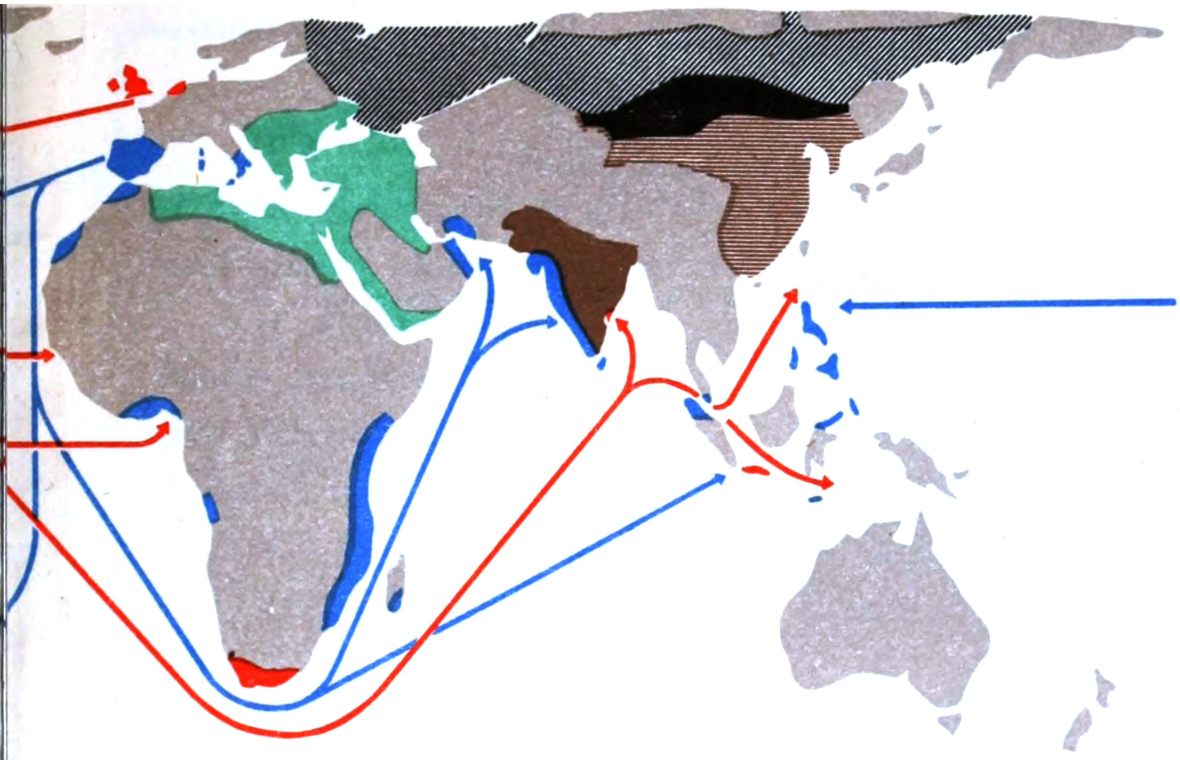
When discoverers brought treasure home from America, many men set out to find other new lands

Columbus did not set out to seek new lands. He wanted to find a new way to India by sailing westward round the world.

His fleet of three small ships left Spain in August, 1492, and after calling at the Canary Islands, sailed west for five weeks without finding land. The frightened sailors were near mutiny when suddenly they saw the branch of a tree floating by.

Next morning land was sighted. But that land was not India, it was one of the islands off America which are now called the West Indies. Six years later, on another voyage, Columbus reached South America.

Other early voyagers to America were John Cabot who sailed from England to Nova Scotia in 1497, Amerigo Vespucci who landed in South America in 1499, and Henry Hudson who discovered Hudson Bay in 1610. America was named either after Vespucci or after Ameryk who helped to pay for Cabot's voyage.



and new fortunes. Soon Spanish, Portuguese, Dutch and British ships sailed to most parts of the world.

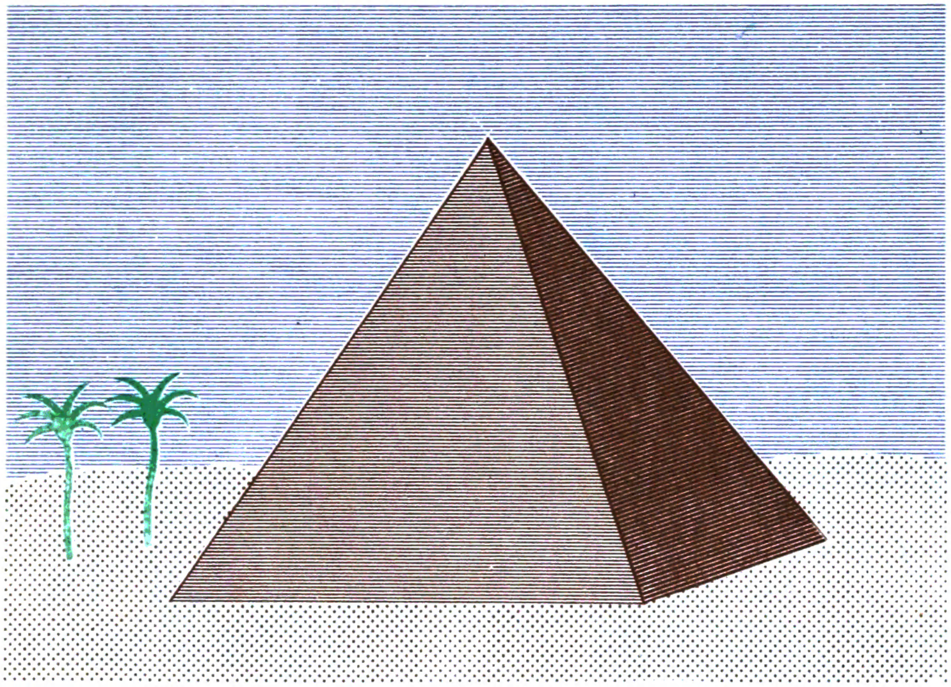
A Spanish soldier.

One of the first inland explorers of America was Cortes, who with only a few hundred Spanish soldiers conquered the great Aztec armies of Mexico. Another was Pizarro, conqueror of Peru. But much of America was explored by early pioneers whose names have long been forgotten.

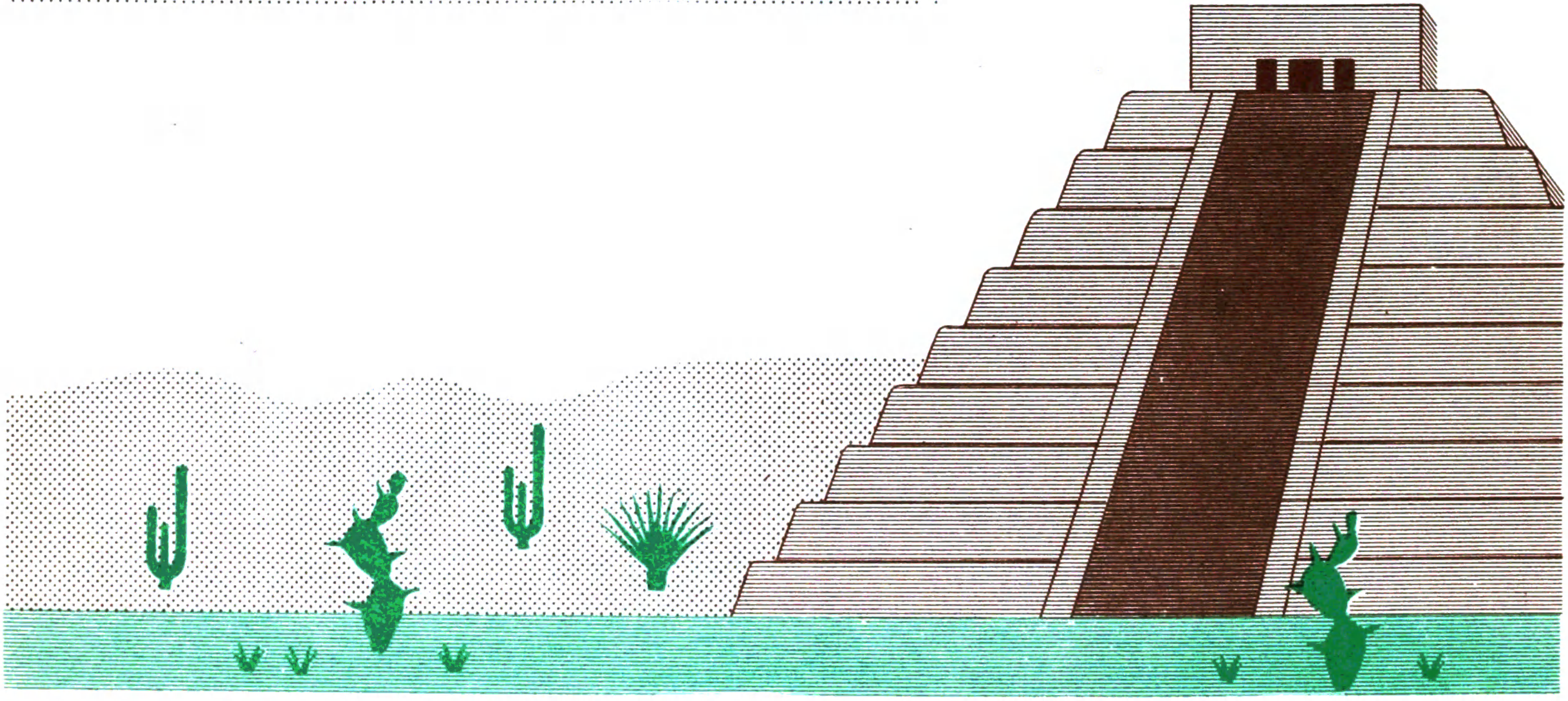
In 1498, the year Columbus reached South America, a Portuguese sailor named Vasco da Gama found a new route to India by sailing round South Africa and eastward across the Indian Ocean. Within a few years, Spanish, Portuguese, Dutch and British ships were sailing to all parts of the New World, and to China, India and the "Spice Islands" of the East Indies.

In 1520 Magellan tried to sail round the world. He was killed before the voyage ended, but one of his ships succeeded in circling the earth. Later Drake's ship, the *Golden Hind* also sailed round the world, discovering much of the west coast of America on the way.

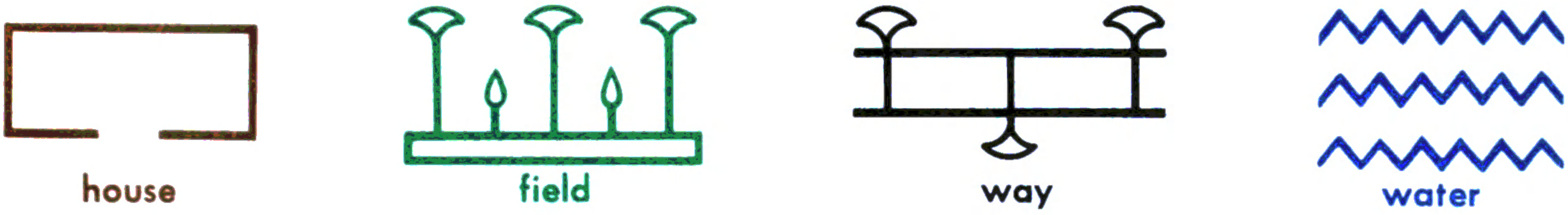
El Dorado—The Land of Gold



Early Spanish explorers believed that somewhere in America there was a land full of treasure, which they called *El Dorado*, the land of gold. The English soldier, Sir Walter Raleigh, was imprisoned by the King of England because he failed to find it!



American Indians, cut off from the rest of the world for thousands of years, learned to do many things just as other people did them. The bottom pyramid, built by Mayan Indians, is not unlike the top one, built by the ancient Egyptians.



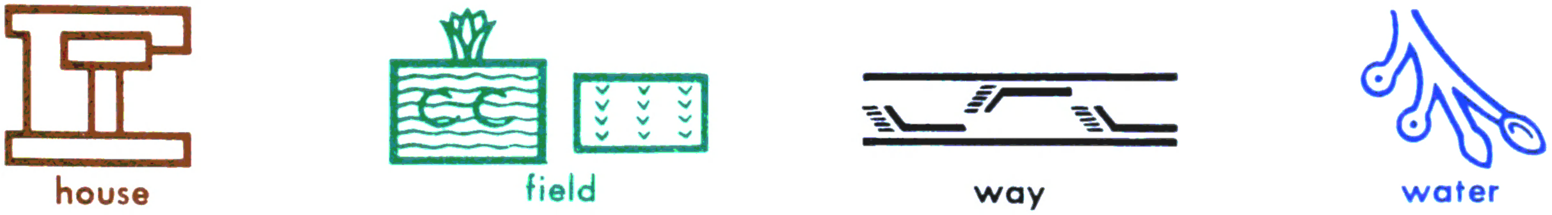
house field way water

Here are four ancient Egyptian picture-words. All the pictures are very simple so that they can be "written" quickly.

Yet there *were* lands of gold in America. Cortes in Mexico and Pizarro in Peru both found ornaments of gold, plates and dishes of gold, temples decorated with gold, and year after year galleons sailed across the Spanish Main carrying treasure to the King of Spain.

In a way it was more accurate to call America *El Dorado* than to call it the New World, for although it was new to white men, Indians had lived there for thousands of years. The first American Indians probably crossed over to Alaska from the plains of East Asia, for at that time the two places may have been joined together by dry land, and not separated by a narrow strip of sea as they are today.

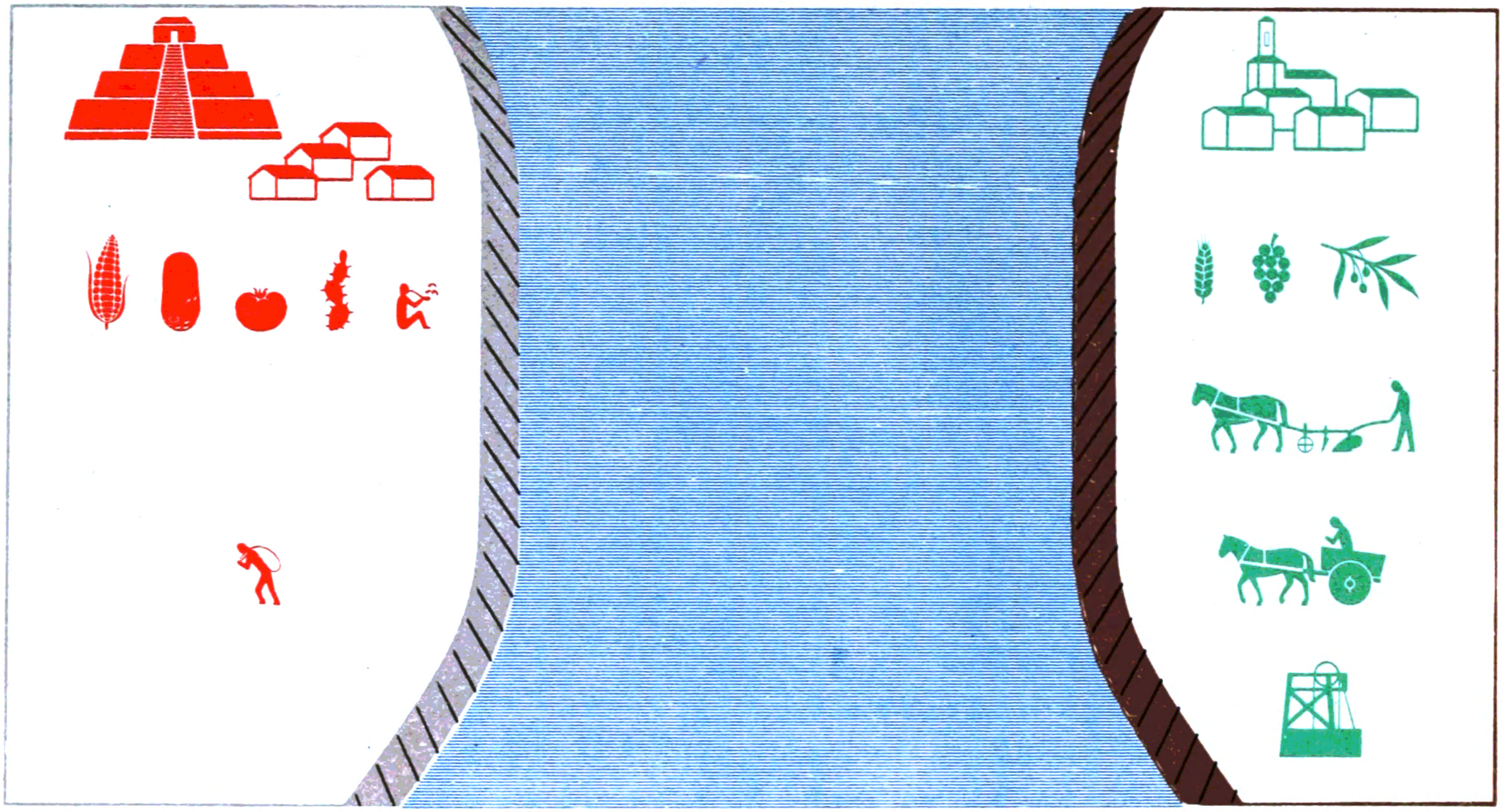
Long before the first white men came, the Mayans and Aztecs of America were building and writing in ways rather similar to those used in parts of the Old World thousands of years earlier. Their temples were built on the tops of buildings called *teocalli*, shaped very much like the pyramids of ancient Egypt. They also had a written language made up of simple pictures, as the Egyptians did many centuries before.



house field way water

The Mayans also had picture-writing, but their pictures were more detailed and took longer to draw. Compare the Mayan picture for "house" with the Egyptian.

The Old World and the New Share Their Treasures



Before the time of Columbus the people of the New World and the Old grew different crops, used different methods of travel, and worshipped different gods.

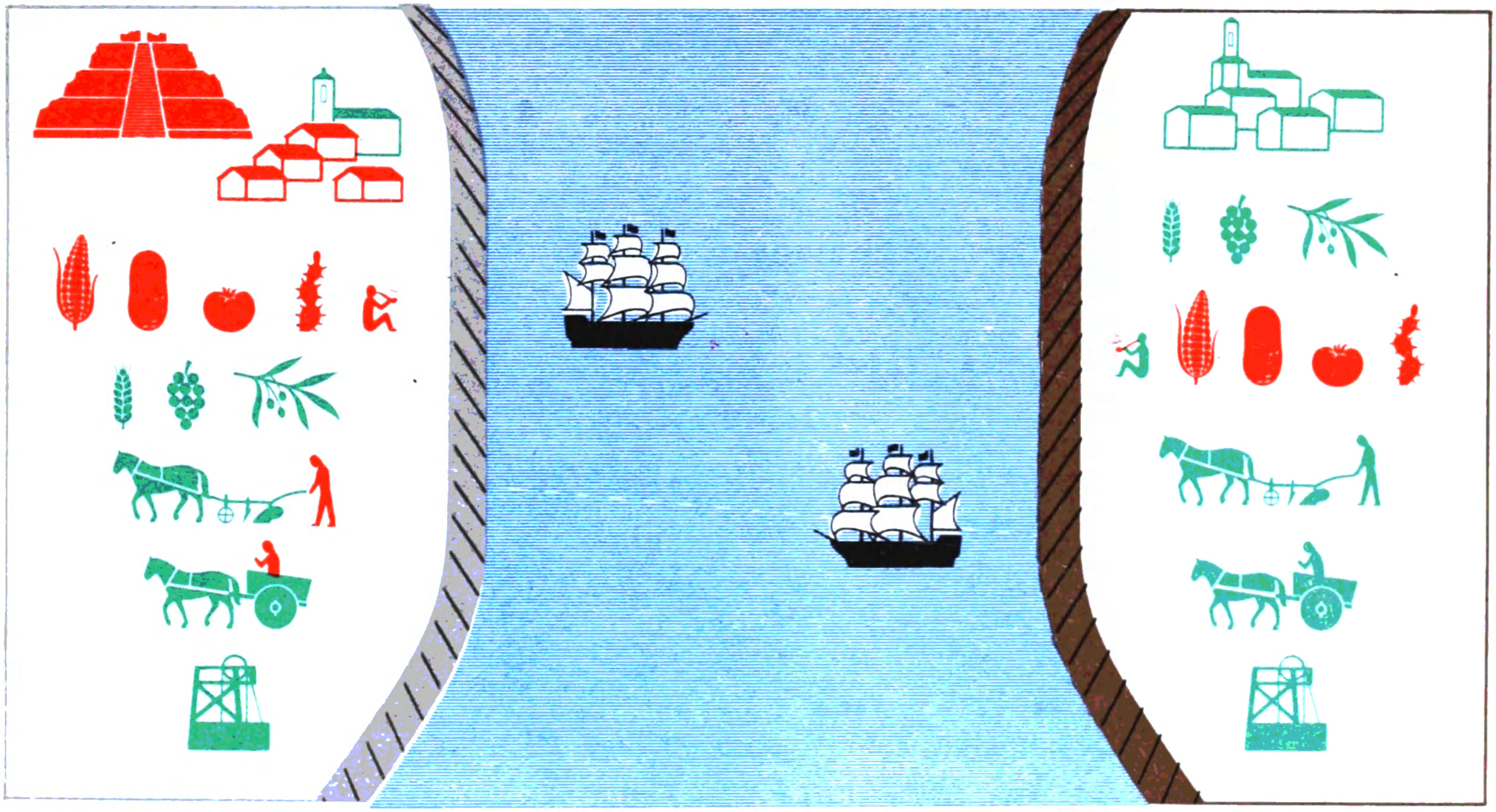
In some ways, however, the people of the New World lived very differently from those of the Old World. They farmed their land differently, had more primitive means of travel, and worshipped different gods.

The American Indians grew corn, potatoes, cocoa-beans and tomatoes, which the Spaniards had never heard of, while the wheat, grapes and olives which grew so well in Spain were not grown at all in Mexico. American Indians kept no animals (except in Peru, where there were llamas), and used pointed sticks to dig the ground, while the men of Spain kept cattle, sheep, goats, pigs and horses, and used plows to till the soil.

In all parts of the Old World people used horse-drawn carts, but in America there were no horses and no carts and all journeys were still made on foot. The first Indians probably reached America before wheels were invented, and in all the centuries that had passed since that time none of their descendants had discovered how to make wheels.

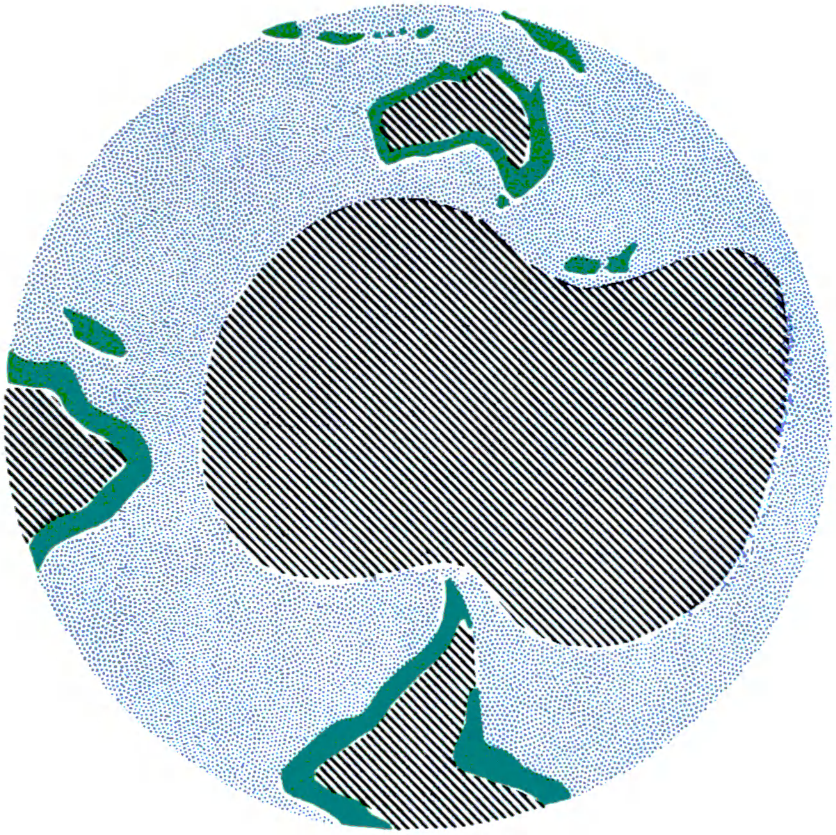
So besides sending home treasure to the Old World, white men also brought many treasures to the New. They brought wheeled carts, clocks, mining machinery, new crops to be grown and new animals to be kept. They also brought the Christian religion and stopped the Aztecs from killing human beings as sacrifices to their old gods.

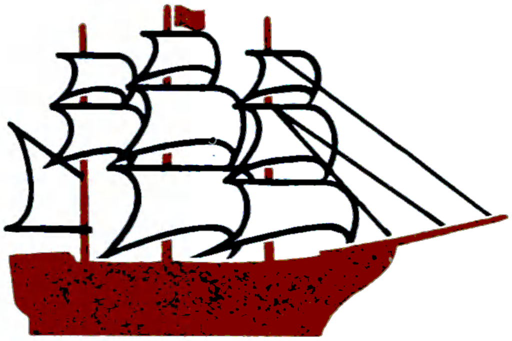
The ships that crossed the Spanish Main to Europe carried not only gold and silver, but also potatoes and corn to plant in the fields of the Old World, and cocoa-beans from which to make chocolate.



As ships crossed the Atlantic, both lands became richer. Europe received potatoes, corn, tomatoes and tobacco. The Indians of America received wheat, grapes, olives, wheels and mining inventions, and learned about the Christian God.

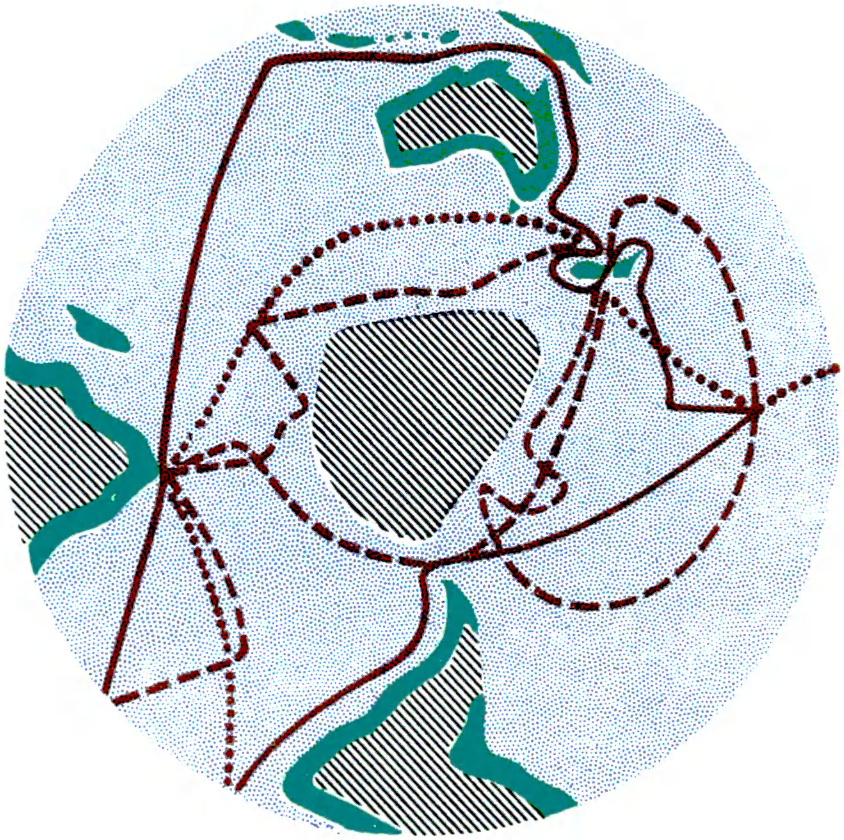
The Man Who Went Searching for a Continent





Before the " Endeavour " sailed, little was known about the southern lands and seas. Was there a continent near the South Pole? Was New Zealand an island?

The brown lines show Cook's southern voyages. He sailed between Australia and New Guinea and round New Zealand. He never reached the Antarctic, but sailed almost round it.

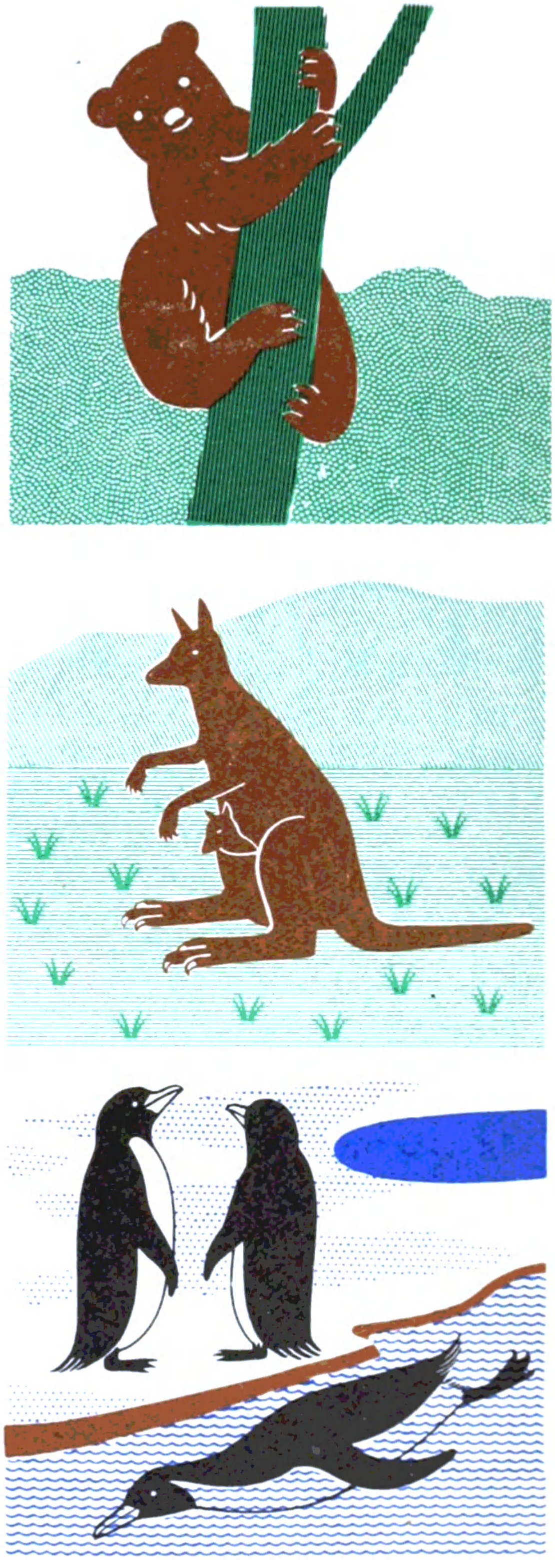


More than a hundred years went by after Columbus' voyage before a Dutch ship called *The Dove* carried the first white men from Java to Australia, and yet another forty years before Tasman, also a Dutchman, discovered Tasmania.

Like America, Australia and Tasmania had many strange things to show to the white men. There, for the first time, Europeans saw furry animals that laid eggs and others that carried their young in pouches, and there they saw the curved wooden boomerangs of the Australian natives, which flew through the air and returned to the hand of the man who threw them.

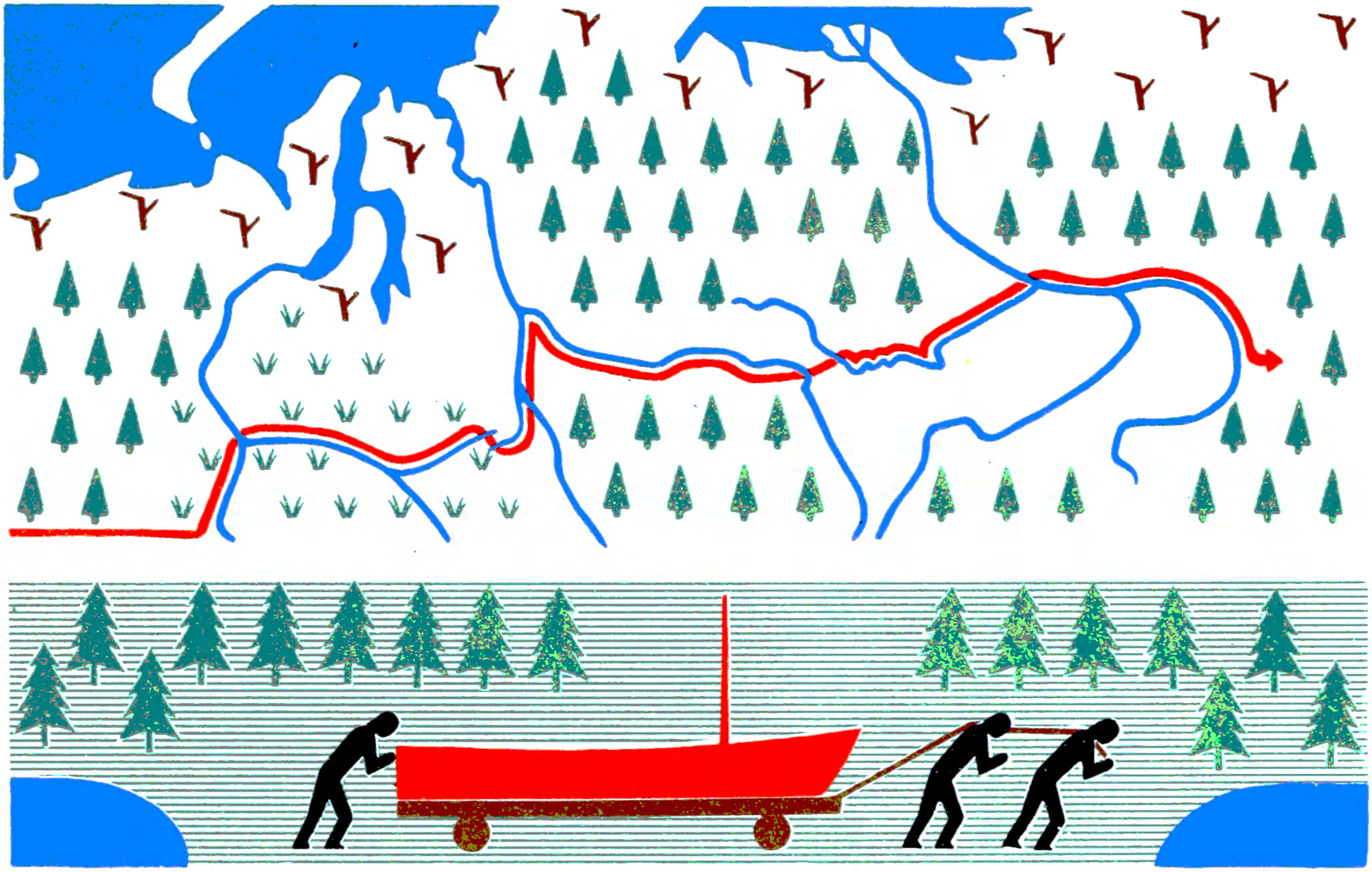
It took many years for these southern lands to be explored fully, and more than a century after Tasman's time there were still many questions about them which had not been answered. Was there yet another huge continent stretching away to the South Pole? If so, how big was it? Was New Zealand an island?

In 1768 and again in 1772 the British explorer, Captain Cook, set out in the *Endeavour* to search for the continent which was believed to be near the South Pole. Although he never found it, he learned much about other lands. He voyaged right round New Zealand, showing that it was not part of a new continent, and sailed the seas between Australia and New Guinea, satisfying himself that they were not joined together. Cook was also first to sail the Antarctic seas, the home of the penguins.



Some of the creatures of the Southern lands: koala-bear, kangaroo, penguins.

The Boats That Crossed the Prairies



In the vast plains of Siberia there are many rivers separated by only short stretches of land. Much of the country was explored by sailing along one river and wheeling the boat across the plain to the next one.

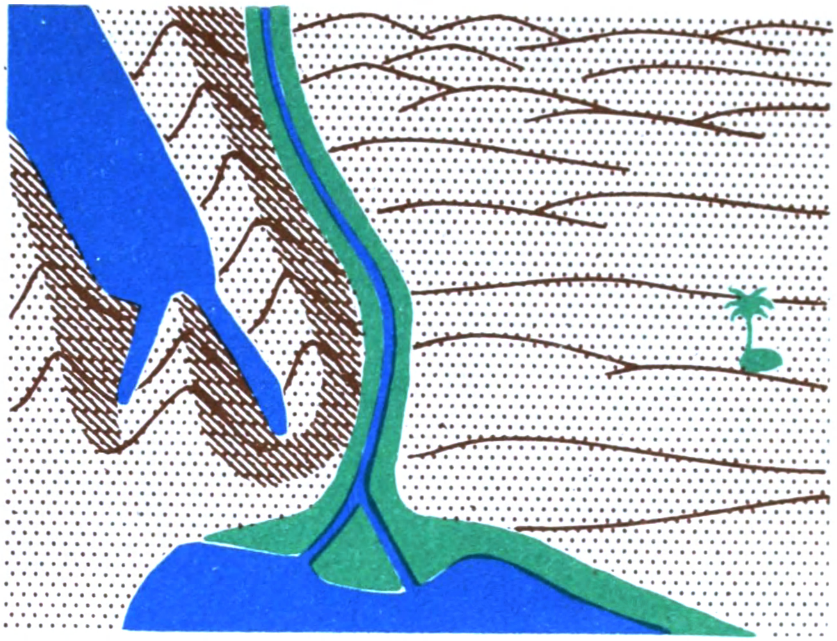
In some parts of the world, rivers were a great help to inland explorers. Rivers like the Mississippi, the St. Lawrence and the Amazon lead to the very heart of the New World.

In Siberia, besides the great rivers which flow into the Arctic seas, there are many smaller ones which flow east or west. In many cases it is only a short distance from one to another. The early Norse adventurers sailed along one river and then pulled their boats across prairies or forest on wheeled trolleys until they came to the next one. In this way they journeyed many miles.

But in Africa nearly all the rivers except the Nile had rapids or waterfalls a short way from the sea which stopped boats sailing inland. Deserts, mountains and jungles made it impossible to carry boats from one river to another.

European settlers had lived along parts of the African coast almost from the time of Columbus, but it is only during the last hundred and fifty years that white men have explored the interior of the continent.

The first men to cross Africa were two Portuguese traders, Baptista and José. They left Angola in the west in 1802 and reached Zambesi in the east in 1811. In 1849 the British missionary, David Livingstone, who had earlier crossed the Kalahari Desert, made a second west-to-east crossing of the continent. On another expedition in central Africa Livingstone was feared lost, and the American journalist, Stanley, who found him, later became one of the most famous of all African explorers.



In Africa there were mountains and deserts. Boats could not even be carried the short distance from the Red Sea to the Nile.

Explorers could not go far inland along most African rivers. Usually they met waterfalls only a few miles from the coast.

Travels Through Ice, Desert and Jungle

Polar explorers often lived like Eskimos, sleeping in snow-built houses, using sledges drawn by teams of dogs, hunting seals from skin-covered boats.

Other lands not explored until recent years are those near the North and South Poles. A thousand years ago the Norsemen sometimes voyaged to Greenland but they seldom went inland. Eight hundred years later Russian sailors like Bering crossed the North Pacific from Siberia and discovered Alaska, but they, too, kept near the coasts.

Little was known about central Greenland until seventy years ago, when the Norwegian explorer, Nansen, and the American admiral, Robert Peary, who later was first to reach the North Pole, crossed it by sledge.

Inland exploration in the Antarctic was hardly begun until after 1900 when Scott and Shackleton tried to reach the South Pole. Scott, using mules and man-hauled sledges, finally reached it on 18th January, 1912, only to find that the Norwegian explorer, Amundsen, using fast dog-sledges, had got there nine days before him. A few weeks later Scott and his Polar party died of cold and fatigue on their journey back to base.

Polar explorers often lived like the Eskimos, wearing clothes made from animal skins, using dogs to pull their sledges, fishing from skin-covered

Men who explored desert lands often journeyed from oasis to oasis on the backs of camels, wearing light, flowing clothes, just as the Arabs did.

boats called kayaks and eating seal-blubber to help keep them warm.

Explorers of deserts and jungles, too, often found it wise to live and travel like the natives of the countries they visited. Men like the Frenchman, Foureau, who spent twelve years exploring the Sahara at the end of the nineteenth century, journeyed from oasis to oasis on the backs of camels, and often lived in tents and wore light, flowing clothes like the Arabs.

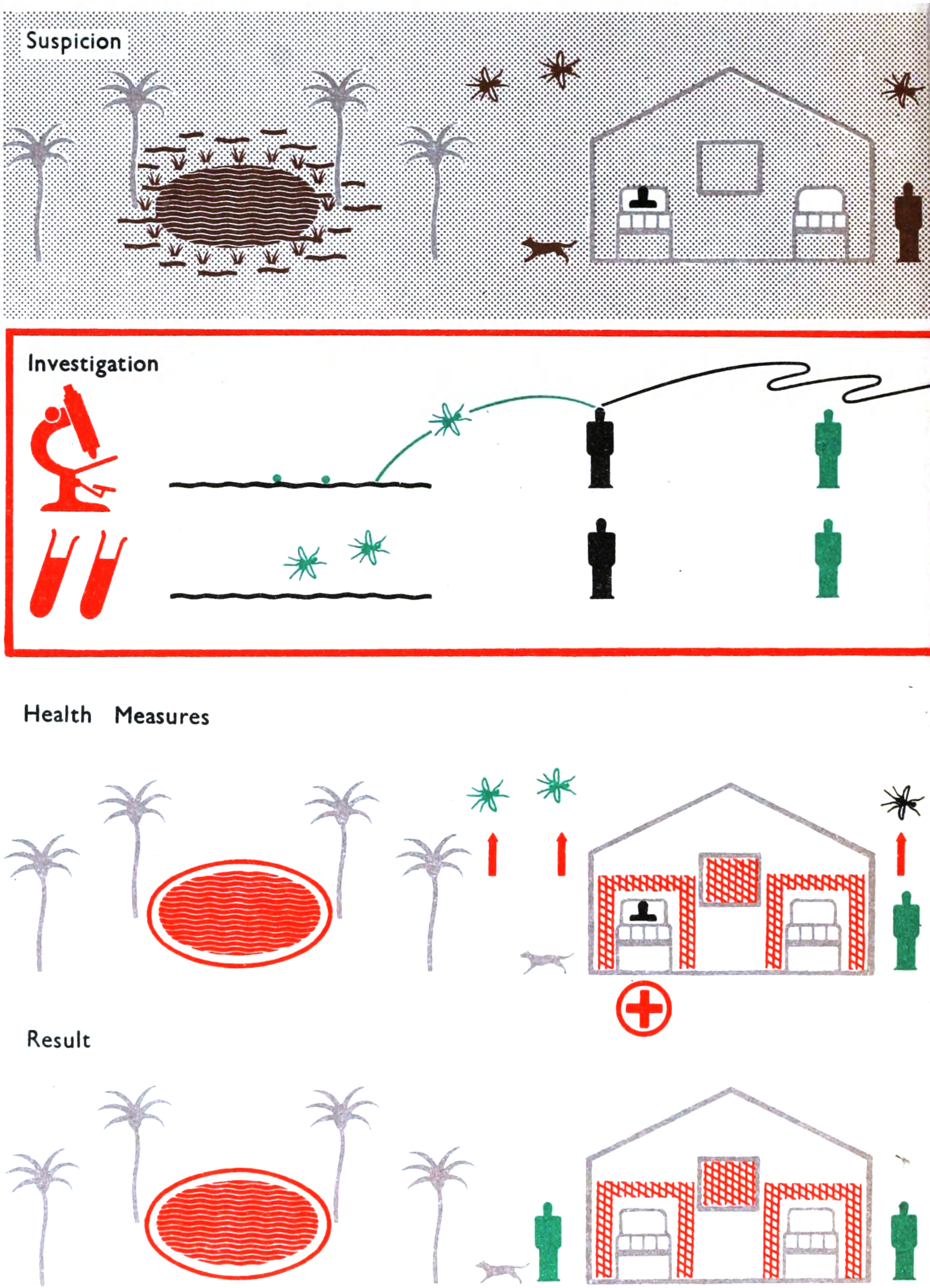
In the dense jungles of central Africa, Indo-China and Burma, white explorers had to travel on foot, employing native bearers to carry their food and equipment. In some remote parts of Africa and New Guinea people still travel as they did many years ago.

Early discoverers had to travel on foot through jungles, sleeping in native huts and hiring natives to carry their goods.

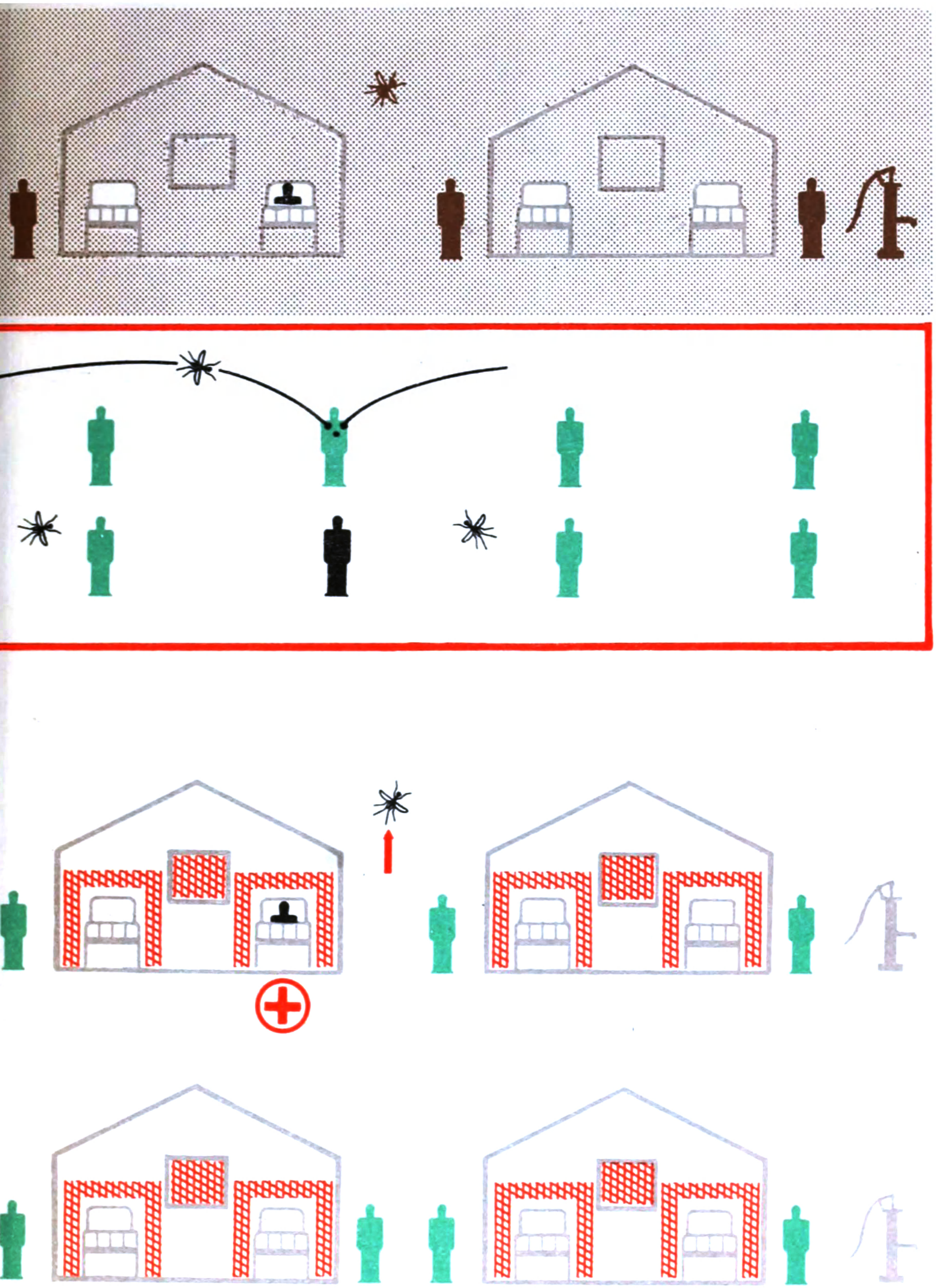
Learning to Live in the White Man's Grave

Except for Alaska, which has rich deposits of minerals, many forests and good salmon rivers, men have not found much use for the lands near the Poles of the earth. Many of the hot countries which the early explorers discovered, however, were rich and fertile, and could be made to yield good crops of cocoa, coffee, bananas, tea and rubber once white men had taught the natives new ways of cultivating the land.

But many of the people who settled in tropical lands caught a fever called malaria which often ended in death. At first people suspected many things of spreading malaria — the damp air from swamps, bad water supplies,



Scientists found that malaria was spread not by dirty water, dogs or damp air, but by mosquitoes. By clearing



the swamps where they bred and by using mosquito nets, the settlers soon checked the spread of this disease.

mosquitoes, pets, and people who were sick.

Scientists and doctors of many lands, like Laveran, Celli and Ross, carried out long investigations and found that the germ which caused malaria was carried from sick people to healthy ones by mosquitoes which hatched out from eggs laid in stagnant water.

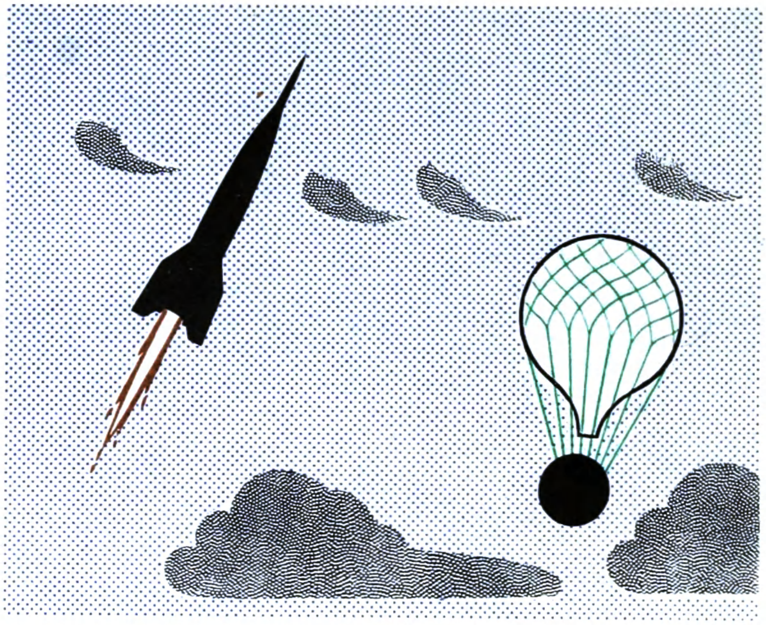
After that many swamps were drained, and ponds were sprayed with oil to stop mosquito eggs from hatching out. Nets were placed over windows, doors and beds so that mosquitoes could not so easily bite people. In this way the spread of malaria was stopped, and soon white men and natives alike were living healthy and useful lives in such lands as West Africa, which not long before had been called " The White Man's Grave".

What Shall We Discover Next?

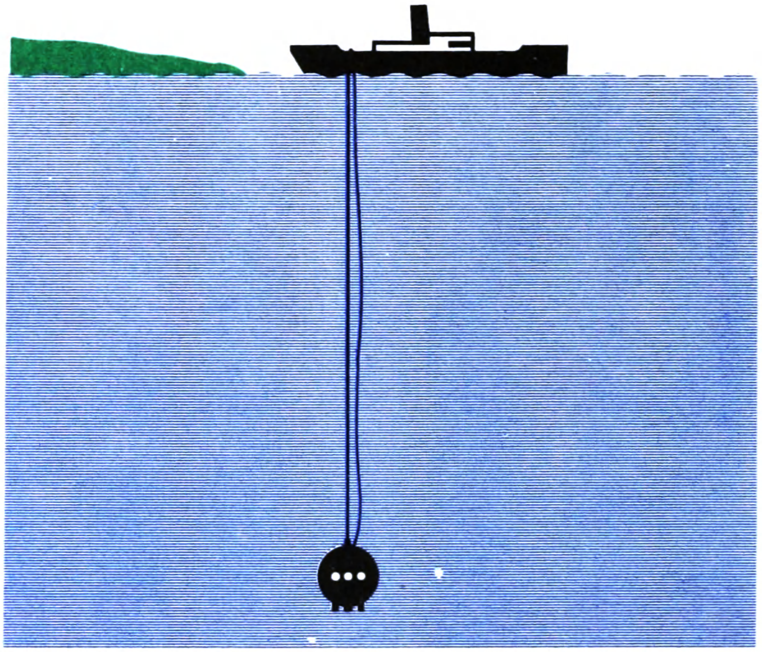
And now the last of the great continents and the last of the broad oceans have been discovered. Never again will an explorer sight the shore of a new world from the deck of some far-voyaging ship, never again will a man stand on some far mountain peak and gaze out across an unknown sea.

Yet many new and wonderful adventures await the men of the future. The adventurers of days gone by explored only the surface of land and sea, but the men of the future will have balloons, planes and rockets to carry them high above the clouds, diving-balls and submarines to take them to the depths of the seas.

So far, men have flown only a few miles above the earth, but in years to come space-ships may even carry them to other planets. Little is yet known of life deep in the oceans, or of what treasures may lie far beneath the earth. These are secrets which await the discoverers of tomorrow.



The explorers of the future may travel many miles above the earth in rocket-ships or in stratosphere balloons.



The men of tomorrow, exploring in diving-balls, still have many discoveries to make on the bed of the ocean.